STATE OF ILLINOIS

ILLINOIS COMMERCE COMMISSION

Grain Belt Express Clean Line LLC	)	
	)	
Application for an Order Granting Grain Belt Express Clean Line LLC a Certificate of Public Convenience and Necessity pursuant to Section 8-406.1 of the Public Utilities Act to Construct, Operate and Maintain a High Voltage Electric Service Transmission Line and to Conduct a Transmission Public Utility Business in Connection Therewith and Authorizing Grain Belt Express Clean Line Pursuant to Sections 8-503 and 8-406.1(i) of the Public Utilities Act to Construct the High Voltage Electric Transmission Line.	)	**Docket No. 15-0277**

DRAFT ORDER SUBMITTED BY

GRAIN BELT EXPRESS CLEAN LINE LLC

Of counsel: Cary Kottler Executive Vice President and General Counsel Erin Szalkowski Corporate Counsel Clean Line Energy Partners LLC 1001 McKinney Street Suite 700 Houston, TX 77002 (832) 319-6320 (CK) (832) 319-6323 (ES) ckottler@cleanlineenergy.com eszalkowski@cleanlineenergy.com	Owen E. MacBride Barry S. Hyman Diana Z. Bowman Katherine G. Cisneros Raghav Murali Schiff Hardin LLP 233 South Wacker Drive, Suite 6600 Chicago, IL 60606 (312) 258-5680/5721/5503/5633/5647 omacbride@schiffhardin.com bhyman@schiffhardin.com dbowman@schiffhardin.com kcisneros@schiffhardin.com rmurali@schiffhardin.com

September 23, 2015

TABLE OF CONTENTS

By the Commission:

I. INTRODUCTION

In this case, Grain Belt Express Clean Line LLC ("Grain Belt Express" or "GBX") seeks a certificate of public convenience and necessity ("CPCN") from the Commission pursuant to §8-406.1 of the Public Utilities Act ("Act"), 220 ILCS 5/8-406.1, to construct the Illinois portion of a new high voltage electric transmission line and related facilities and to conduct a transmission public utility business in connection therewith. Grain Belt Express also seeks an order pursuant to §8-503 and §8-406.1(i) of the Act, 220 ILCS 5/8-503 and 220 ILCS 5/8-406.1(i), authorizing it to construct the transmission line and related facilities.

A. Overview and Summary of Parties' Positions

1. Summary of Grain Belt Express' Position

Grain Belt Express states that its proposed transmission line (the "Project") will be a ±600 kilovolt ("kV"), 4,000 megawatt ("MW") capacity, high voltage direct current ("HVDC") transmission line that will run from an alternating current ("AC")-to-direct current ("DC") converter station in Ford County, Kansas, across Kansas, Missouri and Illinois, to a DC-to-AC converter station near West Union in Clark County, Illinois. The line will then continue as a 345 kV double circuit AC line for approximately 5.2 miles from the converter station to an interconnection with the PJM Interconnection LLC ("PJM") transmission network at the Sullivan/Breed substation of American Electric Power Company ("AEP") in Sullivan County, Indiana, approximately 1.6 miles across the Illinois/Indiana border. The Project will also have a DC-to-AC converter station and a delivery point into the Midcontinent Independent System Operator ("MISO") transmission network at an interconnection with the Ameren Missouri system in Ralls County in northeast Missouri. Application ¶¶6-7, 33, 63; GBX Initial Brief ("IB") at 1.

Grain Belt Express states that the objective of the Project is to transport clean, low-cost electricity from wind generation plants to be built in western Kansas, which has excellent wind resources, to the electricity markets in Illinois and other PJM and MISO states. GBX states that the Project will be capable of delivering 500 MW of power into the MISO grid at a delivery point in northeast Missouri and 3,500 MW of power into the PJM grid at a delivery point in western Indiana. GBX states that due to the close proximity of the Missouri and Indiana delivery points to Illinois and the regional nature of the MISO and PJM grids and electricity markets, electricity delivered at the Missouri and Indiana delivery points will flow and be delivered into and be used to serve customers in Illinois. GBX says that the Project will deliver approximately 2.6 million megawatt-hours ("MWh") of clean energy per year into the MISO market, and up to 18 million MWh of clean energy per year into the PJM market, and that the total annual deliveries of over 20 million MWh will be enough to serve the annual electricity needs of over 1.6 million homes. GBX asserts that the Project will make additional wind generation, located in an area with higher wind speeds and lower costs per MWh, accessible to the Illinois market to meet the demand for clean energy and for electricity generally. Application ¶¶6, 32-33; GBX IB at 1-2.

Grain Belt Express contends that it satisfied the extensive pre-filing requirements

in §8-406.1 for public meetings, publicity and notifications, and other activities intended to inform the public in the area where the proposed new electric transmission line will be constructed. Grain Belt Express states that it also complied with the requirements of §8-406.1 to provide extensive technical and engineering information about the proposed transmission line with its Application, to provide a primary route (referred to as the "Proposed Route") and a distinct Alternate Route for the transmission line in Illinois, to pay the $100,000 filing fee to the Commission, and to commit to pay to each county in which the line will be located construction fees of $20,000 per mile times the number of miles of the transmission line in that county. GBX IB at 2.

Grain Belt Express summarizes the reasons that the Project meets the criteria set forth in §8-406.1(f) for the grant of a CPCN to construct a new high voltage electric service line and related facilities as follows: First, GBX contends that the Project is necessary to provide adequate, reliable and efficient service to Grain Belt Express's customers; specifically, to provide a direct, efficient, high capacity transmission link from wind generators located in the wind-rich area of western Kansas to electricity markets in Illinois and other PJM and MISO states, in order to enable these wind generators to deliver their output to electricity markets in PJM and MISO and to enable electricity buyers in those destination markets to acquire the clean, low cost energy produced in western Kansas. GBX also contends that the Project is the least cost means of providing this service to customers. GBX IB at 2-3. Second, GBX contends that by allowing 4,000 MW of new, low cost renewable generation to access the electricity markets in Illinois and other PJM and MISO states and lowering electricity prices in those markets, the Project will promote the development of an effectively competitive electricity market that operates efficiently, is equitable to all customers, and is the least cost means of satisfying those objectives. GBX IB at 3. Third, GBX states that the Project will deliver low-cost electricity from renewable resources that will help to meet Renewable Portfolio Standard ("RPS") requirements in Illinois and other states, meet the growing demand for energy from renewables that exists over and above RPS requirements, and meet the need for low-cost electricity generally, including to replace the output of retiring fossil-fueled generation. GBX IB at 3. Fourth, GBX states that it is capable of efficiently managing and supervising the construction of the Project. GBX IB at 3. Fifth, GBX states that it is capable of financing the construction of the Project without significant adverse financial consequences. GBX IB at 3. Sixth, GBX states that, as required by §8-406.1(f), the Project will promote the public convenience and necessity, in the ways just described, and also by reducing emissions from electric power generation; improving the geographic diversity of the renewable generation portfolio serving Illinois and thereby reducing the costs of integrating wind power into the overall generation mix serving Illinois; providing generation fuel diversity and reducing the volatility of electricity prices; and creating significant employment and economic activity in this state. GBX IB at 3. Seventh, GBX states that, to help ensure that the statutory criteria are met, it proposes that the Commission adopt requirements or conditions to the CPCN that it adopted in its order granting a CPCN to Grain Belt Express's sister transmission company, Rock Island Clean Line, in the order in Docket 12-0560.[1] GBX IB at 2-3.

Grain Belt Express states that it developed the Proposed Route of the transmission line in Illinois through an extensive route development process that

[1] *Rock Island Clean Line LLC*, Docket 12-0560 (order issued Nov. 25, 2014).

included significant outreach to and interaction with relevant federal, state and local governing bodies, departments and agencies, environmental and other organizations, and the public in the areas where the line will be constructed, and was based on application of an extensive set of Routing Criteria designed to minimize impacts on the natural and built environments. GBX states that the only changes to the Proposed Route proposed by any party in this case were specific modifications to one portion of the Proposed Route to accommodate concerns raised by two landowners. GBX has made modifications to the proposed route to accommodate these two landowners' concerns. GBX IB at 3-4. Grain Belt Express also claims that it will engage in land acquisition activities in a manner compliant with the Commission's regulations; will offer a fair and reasonable compensation package to landowners for easements on their properties; and will engage in actions necessary and appropriate to avoid, minimize and remediate any adverse impacts to agricultural properties (such as soil compaction, damage to drainage tiles, and erosion), in accordance with its Agricultural Impact Mitigation Agreement ("AIMA") with the Illinois Department of Agriculture, the terms of its easement agreements with landowners, other requirements previously adopted by the Commission, and other commitments made by Grain Belt Express. GBX IB at 3-4.

Grain Belt Express concludes that, based on the record in this proceeding, the Commission should issue an order granting a CPCN to Grain Belt Express to construct the proposed transmission line and related facilities in Illinois and to conduct a transmission public utility business in connection therewith; authorizing Grain Belt Express, pursuant to §8-503 and §8-406.1(i) of the Act, to construct the Project; and approving the Proposed Route of the Project (with the modifications to the Proposed Route proposed in response to specific landowner concerns). GBX IB at 4.

2.-x. [Summaries of Other Parties' Positions]

B. Description of Grain Belt Express and the Project

1. Grain Belt Express' Position

a. Description of Grain Belt Express

Grain Belt Express is a limited liability company organized under the laws of Indiana. Grain Belt Express is a wholly owned subsidiary of Grain Belt Express Holding LLC, a Delaware limited liability company, which in turn is a wholly owned subsidiary of Clean Line Energy Partners LLC ("Clean Line"), also a Delaware limited liability company. App. ¶1-2; GBX Ex. 1.0 at 10. GBX IB at 4. Grain Belt Express states that Clean Line's common equity owners are: (1) GridAmerica Holdings Inc., a subsidiary of National Grid USA ("National Grid"); (2) Clean Line Investor, LLC, an investment vehicle for ZAM Ventures, L.P. ("ZAM Ventures"); (3) Michael Zilkha; and (4) Clean Line Investment LLC. GBX Ex. 1.0 at 10-11; GBX IB at 4-5.

Grain Belt Express describes National Grid as follows: National Grid's regulated subsidiaries in the U.S. deliver electricity to approximately 3.4 million customers in New York, Massachusetts and Rhode Island, and own and operate over 8,600 miles of high voltage transmission. Additionally, National Grid is the largest distributor of natural gas in the northeastern U.S., serving approximately 3.6 million customers. National Grid also invests and participates in the development of natural gas pipelines, LNG storage and other energy related projects. National Grid is a wholly owned subsidiary of

National Grid plc, based in the United Kingdom, whose principal activities are owning and operating regulated networks for transmission and distribution of electricity and natural gas. National Grid plc is one of the largest investor-owned utility companies in the world, and has over $87 billion in assets and over $24 billion in annual revenues. A subsidiary of National Grid plc owns and operates the high voltage transmission system in England and Wales, comprising approximately 4,500 miles of overhead transmission lines and other assets, and operates the high voltage transmission system in Scotland. This subsidiary is also the operator and part owner of a 2,000 mile HVDC link to France, a 1,000 MW HVDC link to the Netherlands, and a planned HVDC facility to link Scotland with England and Wales. Another subsidiary of National Grid plc owns and operates, in Great Britain, the gas transportation system, comprising approximately 4,700 miles of high pressure pipe, and a majority of the gas distribution system in Great Britain, serving over 11 million customers. GBX states that, in addition to the aforementioned HVDC transmission projects, National Grid's experience with HVDC transmission includes: (1) building, operating, and owning a majority share of the U.S. portion of a 2,000 MW, 450 kV interconnector between Canada and New England; and (2) development of a 450-mile HVDC interconnector between Belgium, Norway and Great Britain. GBX Ex. 1.0 at 11-12; GBX Ex. 10.0 at 3-4; GBX IB at 5-6.

Grain Belt Express states that another investor, ZAM Ventures, focuses primarily on long-term investments in the energy sector, including investments in renewable and alternative energy companies and in oil and gas. GBX Ex. 1.0 at 12, 35. Further, Michael Zilkha is an investor in the energy industry, including being the primary investor in Horizon Wind Energy, which is now one of the leading wind energy companies in the U.S., during its early growth. GBX states that the Zilkha family has invested hundreds of millions of dollars in the energy sector. Finally, GBX explains that Clean Line Investment LLC is comprised of employees and service providers of Clean Line who have invested in the company. GBX Ex. 1.0 at 1-2, 12, 35; GBX IB at 5-6. Grain Belt Express states that additionally, during the course of this proceeding, Clean Grid Holdings LLC ("Clean Grid"), a subsidiary of Bluescape Resources, invested in Clean Line by purchasing preferred units, which are convertible into common equity units. GBX states that Bluescape is committed to invest $17 million in Clean Line and has the option to invest up to an additional $33 million in Clean Line. GBX states that members of the management of Bluescape Resources have substantial experience in electric transmission. GBX Ex. 11.13 at 24; Tr. 356, 641, 647, 919-921. GBX IB at 6.

Grain Belt Express states that the business objective of its parent company, Clean Line, is to construct and operate high voltage transmission lines and associated facilities to connect the best renewable resources in the U.S. and to deliver their output to load and population centers, such as Illinois, that have an increasing demand for electricity produced from renewable resources, and thereby to facilitate the development of renewable energy resources in the most cost-effective way possible. Through its wholly owned direct and indirect subsidiaries, Clean Line has five transmission line projects under development in various regions of the U.S., including the Grain Belt Express Project and the Rock Island Clean Line transmission project, which was granted a CPCN by the Commission in Docket 12-0560. App. ¶5; GBX Ex. 1.0 at 1, 12-13. GBX IB at 6. GBX states that, to date, project subsidiaries of Clean Line, including Grain Belt Express, have received regulatory approvals to operate as a public utility and/or to construct proposed transmission projects from the public utility commissions of Illinois, Indiana, Kansas, Oklahoma and Tennessee. GBX Ex. 1.0 at

16-17; GBX IB at 6-7.

b. Description of the Grain Belt Express Project

Grain Belt Express states that the Project is a ±600 kV transmission line project that will originate at an AC-to-DC converter station in Ford County, Kansas, and terminate at an interconnection point with the PJM transmission grid in Sullivan County, Indiana, approximately 1.6 miles across the Illinois-Indiana border. From western Kansas, the transmission line will traverse northern Kansas and northern Missouri to an interconnection point with the 345 kV system of Ameren Missouri on the MISO grid in Ralls County, Missouri, where a DC-to-AC converter station will be located. The transmission line will then cross the Mississippi River at a location approximately 2.5 miles south of Saverton, Missouri, between Mississippi River miles 299 and 300; and enter Illinois approximately 6.5 miles west of New Canton, Illinois, in Pike County. The Proposed Route of the Project will traverse Illinois approximately 202.7 miles to a DC-to-AC converter station to be located near West Union in Clark County, Illinois; extend an additional 3.6 miles from the converter station to the Indiana border; and the line will then continue approximately 1.6 miles in Indiana to the AEP Sullivan/Breed substation, where it will deliver electricity into PJM's 765 kV transmission network. The HVDC transmission line will terminate at the converter station in Clark County, Illinois; from the converter station, a double circuit 345 kV AC line will be constructed approximately 5.2 miles to the Sullivan/Breed substation. The total length of the transmission line from Ford County, Kansas, to the Sullivan/Breed substation will be 780 miles, with approximately 206.3 miles in Illinois based on the Proposed Route of the Project. Application ¶6-7; GBX Ex. 2.0 at 5-6; GBX IB at 7-8.

Grain Belt Express states that the transmission capacity of the Project will be 4,000 MW, with a capability to deliver 500 MW of power to the interconnection point on the MISO grid in northeast Missouri and to deliver 3,500 MW to the interconnection point with the PJM grid in western Indiana. App. ¶6; GBX Ex. 2.0 at 5-6. GBX states that the Project will enable over 4,000 MW of wind farms in western Kansas to have access to deliver their electricity to MISO and PJM, including to customers in Illinois. GBX Ex. 11.0 at 4. According to GBX, the Project will deliver approximately 2.6 million megawatt-hours ("MWh") of electricity per year into the MISO grid in Missouri and approximately 18 million MWh of electricity per year into the PJM grid in Indiana. *Id.* at 5. GBX states that there are numerous high voltage (138 kV to 765 kV) transmission interconnections between Missouri and Illinois and between Indiana and Illinois that will enable electricity delivered by the Project to the MISO grid in northeast Missouri and to the PJM grid in western Indiana to flow or be delivered into Illinois. GBX Ex. 2.0 at 34; GBX Ex. 2.4. GBX states that the electricity that will be delivered by the Project, over 20 million MWh per year, is enough to supply the average annual electricity requirements of more than 1,600,000 homes. GBX Ex. 11.0 at 58; GBX IB at 8.

Grain Belt Express states that by providing a direct, high voltage, efficient transmission connection between the wind-rich area of western Kansas and delivery points on the MISO and PJM grids, the Project will enable over 4,000 MW of wind farms to be built in western Kansas and to transport their electricity to the MISO and PJM interconnection points for delivery to and use by consumers in MISO and PJM, including in Illinois. GBX states that due to the outstanding wind resources and high average annual wind speeds in western Kansas, where wind generation capacity factors now routinely exceed 50%, and the lower construction and siting costs in western Kansas,

these wind farms will be able to generate electricity from renewable resources at lower costs than new wind plants in Illinois or Indiana. GBX Ex. 11.0 at 4-5, 35-37; GBX Ex. 11.13 at 52-53; GBX Ex. 1.0 at 24. GBX states that studies it presented in this case, based on four different sets of future economic and energy market scenarios, show that the Project and the connected Kansas wind generation will reduce wholesale electricity prices in PJM and MISO, which, in Illinois' competitive electricity market, will result in lower retail electricity prices, and will reduce the cost to serve load in Illinois by $108 million to $231 million in 2020 (the Project's projected first full year of operation) and by $95 million to $360 million in 2024 (projected fifth year of operation), depending on the economic and energy market scenario considered. GBX Ex. 3.3 at 1-2; GBX Ex. 11.0 at 33; GBX IB at 8-9.

According to Grain Belt Express, the construction of the new wind generation in western Kansas, and the ability of these wind generators to deliver the clean, economical electricity they produce for consumption in Illinois, is dependent on the construction of the Project. GBX cites governmental bodies and industry organizations, including the North American Electric Reliability Corporation ("NERC") and the U.S. Department of Energy ("DOE"), that have cited the need to improve and enhance the nation's transmission infrastructure in order to be able to move electricity from new wind generating facilities that can be developed in the country's best wind resources areas (which are often remote locales) to load and population centers where there is a demand for low cost electricity from renewable resources. GBX Ex. 1.0 at 18-22. GBX states that, currently, there is not adequate transmission infrastructure to move large quantities of wind power from the wind-rich area of western Kansas to Illinois and other PJM and MISO states. No transmission lines above 345 kV, and no DC lines of any voltage, currently connect western Kansas to Illinois, MISO or PJM. GBX states that while it might be theoretically possible to move power from western Kansas to MISO and PJM using existing 345 kV lines, this would: (1) entail substantially higher electric losses as compared to an HVDC line such as the Project; (2) expose the shipper to congestion costs that result from transmission constraints on the AC system; and (3) require the shipper to pay wheeling and congestion charges to multiple regional transmission organizations ("RTOs"). GBX contends that these additional costs and complexities make it unrealistic and uneconomic from a practical standpoint for wind developers to move power from new wind generation facilities they could construct in western Kansas to MISO and PJM. GBX Ex. 11.0 at 24-25; GBX Ex. 11.4; GBX Ex. 1.0 at 22-23; Infinity Ex. 1 at 4-5, 7, 9-10. It is Grain Belt Express' position that developers of wind generation projects will not invest capital to construct additional wind generation facilities, in areas such as western Kansas that have the nation's best wind resources, without reasonable assurances of adequate transmission infrastructure to deliver their output to load and population centers. GBX Ex. 1.0 at 23; GBX Ex. 11.0 at 6; Infinity Ex. 1 at 6-7; GBX IB at 9-10.

Grain Belt Express states that as an open access transmission provider, it is required to offer all eligible customers the opportunity to purchase transmission service and cannot limit its service to certain types of customers, such as wind generators. GBX states, however, that it is extremely unlikely that any other type of generator, including natural gas or coal, would find it economic to construct a plant in western Kansas and have its output transported to PJM. GBX states that only wind generators, and no owners or developers of other types of generation, responded to Grain Belt Express's recent open solicitation for interest in purchasing transmission service on the

Project. GBX Ex. 11.0 at 8-9.; GBX IB at 8.

Grain Belt Express states that the Project will use HVDC technology, which GBX states is generally regarded as the superior (compared to AC transmission), lower-cost technology for moving large amounts of power, especially electricity produced by variable generation resources, over long distances. According to GBX, HVDC lines can transport significantly more power over long distances with lower line losses than can AC lines. GBX Ex. 1.0 at 26-27; GBX Ex. 2.0 at 9; ICC Staff Ex. 1.0 at 7-8. GBX states that, additionally, HVDC technology gives the operators direct control of energy flows, making it particularly well suited for managing the injection of variable wind generation in to the grid; HVDC lines, unlike AC lines, will not become overloaded by unrelated outages, because the amount of power delivered is strictly limited by the converters at either end of the line; and HVDC lines utilize narrower rights-of-way, fewer conductors and smaller structures than comparable AC lines, thereby making more efficient use of transmission corridors and minimizing visual, land use and other siting impacts. GBX Ex. 2.0 at 9; Tr. 810-812; GBX IB at 10-11.

Grain Belt Express states that it will recover its costs of constructing and operating the Project from its charges to its specific transmission customers who contract for or purchase transmission service on the Project, rather than through RTO cost allocation or other socialized cost recovery mechanism that spreads the costs of the Project to, and recovers them from, all retail electric ratepayers. 1.0 at 14-15; GBX Ex. 11.0 at 28, 68-70, 87-88; GBX IB at 11.

Grain Belt Express states that it will provide non-discriminatory, open access transmission service to all eligible customers under an Open Access Transmission Tariff ("OATT") conforming to the Federal Energy Regulatory Commission ("FERC") pro forma OATT and other FERC requirements. GBX Ex. 11.0 at 46-47. GBX states that upon completion of construction, it will turn over operation of the transmission line to the PJM RTO, and that PJM will administer transmission service on the Project in accordance with the tariff provisions and will ensure open access service is provided. *Id*. GBX states that as an open access transmission provider under FERC regulation, it will be required to offer all eligible customers the opportunity to purchase transmission service on the Project; it will not deny any eligible customer the opportunity to purchase transmission service; and it cannot and will not unduly discriminate against any eligible customer in favor of another eligible customer. *Id.* at 48; GBX IB at 11. GBX explains that eligible customers will have numerous opportunities to obtain transmission service on the Project, as follows: (1) During an initial open solicitation for service, any eligible customer may request to negotiate an agreement for long-term firm transmission service. (2) If uncontracted capacity remains after the initial open solicitation, other eligible customers may request the remaining firm service prior to the Project going in to operation, or, after it becomes operational, under the OATT. (3) Upon expiration of initial transmission service contracts, any eligible customer may request the freed-up capacity, pursuant to the OATT. (4) Any eligible customer may request non-firm service at any time, and Grain Belt Express is obligated to grant such requests so long as the capacity is not in use by firm service customers. (5) Grain Belt Express will create a secondary market for the Project's transmission capacity, where holders of capacity will be able to make their contracted capacity available to other eligible customers. GBX Ex. 11.0 at 49-53; GBX IB at 11-12.

Grain Belt Express states that it expects its transmission customers will fall

primarily into two categories: (1) owners of generation resources that will contract for transmission capacity to deliver the output of their plants into the MISO transmission grid at the Missouri delivery point and/or into the PJM network at the Indiana delivery point, where the output will then be purchased by load-serving entities either through a bilateral contract or through the MISO and PJM markets; and (2) wholesale electricity purchasers that would contract for transmission capacity and use it to deliver to the PJM or MISO grid electricity that they purchase from generators in western Kansas. GBX states that in either scenario, the electricity delivered by the Project to the MISO and PJM grid will ultimately be sold and delivered to thousands of individual retail electricity customers. GBX Ex. 11.0 at 56-57. GBX states that because Illinois is an open access, customer choice state, retail customers also will be eligible to purchase transmission service on the Project. GBX states that the most likely retail customers for the transmission service will be larger retail customers such as a large institutional customer or governmental entity. *Id.* at 47-48, 57. Grain Belt Express states that it will construct and operate the Project for public use for the transmission of electricity, and the Project will transmit millions of MWh of electricity for the use of the public, *i.e.*, retail customers in the PJM and MISO regions. GBX Ex. 11.0 at 61-66; GBX IB at 12-13.

Grain Belt Express states that it has identified significant customer interest in taking service on its transmission line. GBX states that In November 2013, it conducted a request for information ("RFI") to identify wind farms under development near the proposed converter station location in western Kansas. Fourteen wind developers responded, who in the aggregate are advancing 26 wind projects in the area, totaling over 13,500 MW of capacity, which is approximately three times the amount of generation needed to fully use the Project's capacity. GBX states that these respondents have installed over 100 meteorological towers to collect wind data and estimate the annual energy output of their proposed wind farms, and have over 700,200 acres of land under lease or option on which they can install wind turbines. GBX Ex. 11.0 at 5-6. GBX states that, more recently, in early 2015, it conducted an initial open solicitation for transmission service requests, which GBX explains is the first step toward signing binding transmission service agreements under Grain Belt Express' negotiated rate approval from FERC. (*Grain Belt Express Clean Line LLC,* 147 FERC 61,098 (2014), at PP 17, 19, 23.) GBX states that in response to the open solicitation, 14 shippers submitted transmission service requests for over 20,600 MW of transmission service in total. GBX states that the respondents included experienced wind farm and power generation developers. Ten of the shipper respondents requested a total of 3,324 MW of capacity to the Project's delivery point with MISO in Missouri, and all 14 shipper respondents requested service, totaling 17,301 MW, to the Project's PJM delivery point. GBX Ex. 11.0 at 7-8; GBX Ex. 11.15. GBX states that the results of the open solicitation demonstrate that there is a strong demand to move wind power from western Kansas to the MISO and PJM markets. GBX Ex. 11.0 at 8; GBX IB at 13-14.

Grain Belt Express states that the estimated construction cost for the Project (Kansas to Indiana) is $2.2 billion, plus $550 million for network upgrades, identified through the RTO interconnection processes, for which Grain Belt Express will be responsible, resulting in a total Project cost of $2.75 billion. GBX Ex. 11.0 at 85; Tr. 945-946. GBX states that the estimated cost to construct the transmission line in Illinois (based on the Proposed Route), excluding the converter station in Clark County, is $399.1 million. The cost for the Clark County converter station will be approximately an additional $300 million. GBX Ex. 7.0 at 32-33; GBX Ex. 9.0 at 20. According to GBX,

construction of the Project in Illinois is estimated to create 1,481 jobs over a three-year construction period. GBX Ex. 5.0 at 3; GBX Ex. 5.2 at 3; GBX Ex. 7.0 at 33. GBX states that it is working actively to identify local suppliers and contractors that can supply materials and services for the construction of the Project and to identify specific Illinois businesses from which it can procure materials and components. GBX Ex. 7.0 at 33-34; GBX IB at 14.

Grain Belt Express contends that construction of the Project and the connected wind farms is an attractive economic and commercial opportunity for the potential transmission customers due to the competitive cost of electricity produced from wind in western Kansas. According to GBX, the current market price for power purchase agreements from wind generation facilities in western Kansas is 2.0 to 2.5 cents per kilowatt-hour ("kwh"). GBX states that respondents to the RFI were asked to provide indicative pricing from their facilities, and the lowest-priced 4,000 MW of wind capacity from respondents averaged 2.0 cents per kwh. GBX Ex. 11.0 at 35. GBX estimates transmission costs to move power from western Kansas to PJM, using the Project, of 2.0 cents per kwh (*id*. at 39), for a total delivered cost to PJM of 4.0 to 4.5 cents per kwh. Additionally, GBX states that new wind farms that will be built in western Kansas to connect to the Project will likely have higher capacity factors than existing wind farms (reflecting continually improving wind turbine technology and efficiency, *see* GBX Ex. 1.0 at 18; GBX Ex. 11.13 at 54-55). GBX states that the most recent data indicates that capital costs for new wind generation facilities in Kansas continue to decline. Specifically, with the capital costs of new wind projects coming on line in 2014 taken into account, capital costs in the region of the country that includes Kansas fell by 6.7% from the costs indicated by 2013 data. Tr. 426; GBX IB at 14-15.

Grain Belt Express states that the PROMOD modeling studies conducted by GBX witness Robert Cleveland, which showed reductions in estimated Locational Marginal Prices ("LMPs") in Illinois with the Project in service delivering the output of western Kansas wind generation to PJM and MISO., and the present value of revenue requirements ("PVRR") studies performed by Grain Belt Express witness Berry, show that the forecasted revenues from selling the output of the wind plants in PJM (at market prices) are sufficient to cover the costs of generating electricity at the wind farms in Kansas and transporting the electricity on the Project to PJM. GBX contends, therefore, that the Project offers both prospective wind generation operators in western Kansas and prospective purchasers of electricity in Illinois and PJM an economically compelling and commercially attractive proposition. GBX Ex. 11.0 at 42-43; Tr. 994, 997. GBX contends that the result will be the delivery of significant new supplies of low-cost energy from renewable resources in Illinois, which will reduce electricity prices and promote the public convenience and necessity. GBX IB at 15.

Grain Belt Express states that, in order to construct the Project as planned from Kansas to Indiana, it must obtain relevant regulatory approvals for the states of Kansas, Missouri, Illinois and Indiana. GBX states that it has already obtained the necessary approvals for the states of Kansas and Indiana. GBX Ex. 1.0 at 16. Although the Missouri Public Service Commission ("PSC") issued an order on July 1, 2015, denying Grain Belt Express's request for a certificate of convenience and necessity for the Project in Missouri, Grain Belt Express notes that the Missouri PSC's order explicitly provides that Grain Bet Express has the option to file a new application for a certificate at any point if it develops information it believes would make a better case. Grain Belt

Express states that is analyzing how to address the concerns about the Project that the Missouri PSC identified in its order, for the purpose of determining whether to file a new application with the PSC. GBX Ex. 1.5 at 4. Grain Belt Express also states that it has the option to pursue federal authority to construct the Project in Missouri, pursuant to §1222 of the Federal Energy Policy Act of 2005, and is evaluating that option as well. *Id.* at 5; Tr. 268-269. GBX states that, regardless of the option that it pursues, it maintains its commitment to securing the necessary approval in Missouri and constructing and operating the Project. GBX IB at 15-16.

Grain Belt Express responded to CCPO's assertion that it is "questionable" whether the Grain Belt Express Project is a merchant transmission line because it could in the future seek cost allocation for the Project. Grain Belt Express stated that it has made it clear that it has no plans to seek to recover its costs through RTO regional cost allocation processes. GBX Ex. 1.0 at 14-15; GBX Ex. 11.0 at 69-70; GBX Reply Brief ("RB") at 7. GBX states that it has been recognized by FERC as a merchant transmission developer, *i.e.*, as one that assumes all of the market risk of its transmission project and has no captive customers from which to recover the costs. GBX RB at 7. GBX states that its interconnection request at PJM for the Project is being processed through the PJM merchant transmission interconnection process. GBX Ex. 2.0 at 28-31; GBX RB at 7. GBX states, further, that currently there is no process by which Grain Belt Express could seek and obtain regional cost allocation through an RTO transmission tariff. GBX Ex. 11.0 at 67; Tr. 208, 222; GBX RB at 7. Grain Belt Express states that it has not proposed any circumstances in which it would seek to recover its cost of service from retail ratepayers through a RTO regional cost allocation process, and that any testimony in the record by a GBX witness about potentially seeking cost allocation was in response to hypothetical questions posed by intervenor attorneys. GBX states that any future effort it might make to obtain cost recovery from Illinois retail ratepayers through an RTO regional cost allocation process would face the considerable hurdle of having to obtain the approval of this Commission to do so, in a separate docketed proceeding initiated by Grain Belt Express, as required by the cost allocation condition. GBX RB at 7-8.

C. Procedural History

On April 10, 2015, Grain Belt Express filed its verified Application with the Commission requesting an order (1) granting Grain Belt Express a CPCN pursuant to §8-406.1 of the Act to construct, operate and maintain a high voltage electric service transmission line and related facilities and to conduct a transmission public utility business in connection therewith; (2) authorizing Grain Belt Express, pursuant to §8-503 and §8-406.1 of the PUA, to construct the high voltage electric service line and related facilities; and (3) granting Grain Belt Express certain other relief, as more fully set forth in the Application. Application at 1. Grain Belt Express also filed direct testimony and exhibits of eleven witnesses.

Petitions to intervene were filed by: the Illinois Agricultural Association ("IAA"); Landowners Alliance of Central Illinois, NFP ("LACI"); Mary Ellen Zotos ("MEZ"); Brown Branch LLC and JAR Branch LLC ("Branch Properties"); Rex Encore Farms LLC and Rex Encore Properties LLC ("Rex Encore"); certain individual landowners referred to in this proceeding as Concerned Citizens & Property Owners ("CCPO"); Wind on the Wires ("WOW"); the Environmental Law and Policy Center ("ELPC"); the Building Owners and Managers Association of Chicago ("BOMA"); Local Union Nos. 51 and 702,

International Brotherhood of Electrical Workers, AFL-CIO ("IBEW"); Ameren Illinois Company d/b/a Ameren Illinois; Rockies Express Pipeline, LLC ("REX Pipeline" or "REX"); Infinity Wind Power ("Infinity"); BNSF Railway Company ("BNSF"); the Citizens Utility Board ("CUB"), and the Illinois Central Railroad ("ICRR"). These petitions to intervene were granted by the Administrative Law Judge ("ALJ"). In addition, an appearance was entered by John Barry Julian.

On May 6, 2015, the Commission granted a timely motion filed by Staff to extend by 75 days the deadline for a decision in this proceeding, pursuant to §8-406.1(g) of the Act.

Pursuant to due notice, an initial prehearing conference was held before a duly authorized ALJ of the Commission on May 5, 2015, at the Commission's offices in Springfield, Illinois. Additional status hearings or prehearing conferences were held, pursuant to due notice, on June 23, July 1 and August 12, 2015. In addition, public forums concerning the proposed Project were held by the Commission on July 28, 2015, in Pittsfield, Illinois; on July 29, 2015, in Pana, Illinois; and on July 29, 2015, in Marshall, Illinois.

On or about May 18, 2015, various parties filed motions to dismiss Grain Belt Express's Application. The Commission denied the motions to dismiss on June 16, 2015. On or about July 15, 2015, various parties filed motions to reconsider the Commission's decision denying the motions to dismiss. The Commission denied the motions to reconsider on July 28, 2015.

On June 8, 2015, pursuant to the procedural schedule established by the ALJ, certain parties filed proposed revisions to the Proposed Route of the Project originally submitted by Grain Belt Express. On various dates thereafter, pursuant to the procedural schedule, Staff and various intervening parties filed direct testimony, and Staff, various intervening parties and Grain Belt Express filed rebuttal testimony.

An evidentiary hearing was held on August 17, 18, 19, 20 and 21, 2015, at the Commission's offices in Springfield. Testimony and/or exhibits submitted by the following witnesses was admitted into evidence: for Grain Belt Express, Michael Skelly, Dr. Wayne Galli, Robert Cleveland, Dr. Karl A. McDermott, Dr. David A. Loomis, Robert Zavadil, Mark O. Lawlor, Timothy B. Gaul, Lee M. Jones, Stanley Blazewicz, and David Berry; for LACI, Dennis Sagez, Kendra Kleinik Davis, and Dr. Michael Proctor; for Zotos, Michael A. Severson and Nafsica Zotos; for CCPO, Joseph Gleespen, Sheryl Slightom, Ervil Fisher Jr., Kendall Cole, Michael Buchanan, Natalie Locke, and Don Hennings; for ICRR, Arthur L. Spiros; for Infinity Wind Power, Matt Langley; for WOW, Michael Goggin; for IBEW, James R. Bates; for BOMA, Michael F. Cornicelli; for Rex Encore, Chad Walker Brigham; for Branch Properties, Tom Rodgers; and for Commission Staff, Yassir Rashid, Janis Freetly, Richard Zuraski, and Mark Hanson. In addition, a Stipulation between Grain Belt Express and REX Pipeline was admitted into evidence, and several motions to take administrative notice of various documents and facts were granted by the ALJ.

Initial briefs were filed by Grain Belt Express, Commission Staff, IBEW, WOW, Infinity, CUB, ELPC, BOMA, BNSF, ICRR, Rex Encore, Branch Properties, CCPO, MEZ, IAA and LACI. Reply briefs were filed by Grain Belt Express, Commission Staff, WOW, Infinity, Rex Encore, CCPO, MEZ, IAA and LACI. A Proposed Order was issued

by the ALJ. Various parties filed briefs on exceptions to the ALJ Proposed Order and/or briefs in reply to exceptions.

D. Legal Standards

Grain Belt Express's Application is filed pursuant to §8-406.1 of the Act. Section 8-406.1(f) sets forth the following criteria that the Commission must find are met in order to grant a CPCN for a proposed new high voltage electric transmission line and related facilities:

> The Commission shall, after notice and hearing, grant a certificate of public convenience and necessity filed in accordance with the requirements of this Section if, based upon the application filed with the Commission and the evidentiary record, it finds the Project will promote the public convenience and necessity and that all of the following criteria are satisfied:
>
> (1) That the Project is necessary to provide adequate, reliable, and efficient service to the public utility's customers and is the least-cost means of satisfying the service needs of the public utility's customers or that the Project will promote the development of an effectively competitive electricity market that operates efficiently, is equitable to all customers, and is the least cost means of satisfying those objectives.
>
> (2) That the public utility is capable of efficiently managing and supervising the construction process and has taken sufficient action to ensure adequate and efficient construction and supervision of the construction.
>
> (3) That the public utility is capable of financing the proposed construction without significant adverse financial consequences for the utility or its customers.

The first numbered subpart quoted above sets forth two alternative criteria, at least one of which must be satisfied. The second and third subparts set forth additional criteria, each of which must be satisfied. The Commission must also find that the proposed Project will promote the public convenience and necessity.

Grain Belt Express also requests an order pursuant to §8-406.1(i) and §8-503 of the PUA authorizing the construction of the proposed Project. Section 8-503 states, in part, as follows:

> Whenever the Commission, after a hearing, shall find that additions, extensions, repairs or improvements to, or changes in, the existing plant, equipment, apparatus, facilities or other physical property of any public utility . . . are necessary and ought reasonably to be made or that a new structure or structures is or are necessary and should be erected, to promote the security or convenience of its employees or the public or promote the development of an effectively competitive electricity market, or in any other way to secure adequate service or facilities, the Commission shall make and serve an order authorizing or directing that

> such additions, extensions, repairs, improvements or changes be made, or such structure or structures be erected at the location, in the manner and within the time specified in said order . . . .
>
> Further, §8-406.1(i) states:
>
> > Notwithstanding any other provisions of this Act, a decision granting a certificate under this Section shall include an order pursuant to Section 8-503 of this Act authorizing or directing the construction of the high voltage electric service line and related facilities as approved by the Commission, in the manner and within the time specified in said order.

Subsections (a), (d) and (e) of §8-406.1 set forth extensive requirements for providing pre-filing notices to the public and holding and pre-filing public meetings, for information that must be included in the application (including, among other information, both a "primary right-of-way" and one or more "alternate rights-of-way" for the proposed transmission line), payment of a $100,000 filing fee to the Commission, and a post-filing public notice. Additionally, §8-406.1(h) requires the applicant to pay a one-time construction fee to each county within which the line is located, within 30 days after completion of construction.

In construing the statutory terms "public convenience and necessity" and "necessary" used in the certificate provisions of the Act (these terms are used in §8-406.1(f) and in §8-503), Illinois courts have held that "necessity" and "necessary" do not mean "indispensably requisite," but rather that the service proposed to be provided is "needful and useful to the public." *Eagle Bus Lines, Inc. v. ICC*, 3 Ill. 2d 66, 78, 119 N.E. 2d 915, 922 (1954) (if the service is needful and useful to the public, it is necessary); *Gernand v. ICC*, 286 Ill. App. 3d 934, 945, 676 N.E. 2d 1384, 1391 (4th Dist. 1977) (same); *King v. ICC*, 39 Ill. App. 3d 648, 653, 351 N.E. 2d 589, 593-94 (4th Dist. 1976) (same). The Illinois Supreme Court has stated that:

> When the statute requires a certificate of public convenience and necessity as a prerequisite to the construction or extension of any public utility, the word "necessity" is not used in its lexicographical sense of "indispensably requisite." If it were, no certificate of public convenience and necessity could ever be granted. . . .[A]ny improvement which is highly important to the public convenience and desirable for the public welfare may be regarded as necessary. If it is of sufficient importance to warrant the expense of making it, it is a public necessity . . . . A strong or urgent reason why a thing should be done creates a necessity for doing it. * * * The word connotes different degrees of necessity. It sometimes means indispensable; at others, needful, requisite or conducive. It is relative rather than absolute. No definition can be given that would fit all statutes. . . . The Commerce Commission has a right to, and should, look to the future as well as to the present situation. Public utilities are expected to provide for the public necessities, not only today, but to anticipate all future developments reasonably to be foreseen. The necessity to be provided for is not only the existing urgent need, but the need to be expected in the future, so far as it may be anticipated from the development of the community, the growth of industry, the increase in wealth and population and all the elements to be expected in the progress

of a community. *Wabash, Chester & Western R.R. Co. v. ICC*, 309 Ill. 412, 418, 141 N.E. 212, 214-15 (1923).

Further, the Illinois courts have long held that what constitutes public convenience and necessity is within the Commission's discretion to determine in each case, thereby permitting consideration of a broad range of factors as applicable to the particular case. *Egyptian Transp. Sys. v. Louisville & N. R. Co.*, 321 Ill. 580, 584, 152 N.E. 510, 511 (1926); *Commonwealth Edison Co. v. ICC*, 295 Ill. App. 3d 311, 317, 692 N.E. 2d 1350, 1353 (2d Dist. 1998); *New Landing Util., Inc. v. ICC*, 58 Ill. App. 3d 868, 871, 374 N.E. 2d 6, 9 (2d Dist. 1977); *see also Illinois Power Co. v. ICC*, 111 Ill. 2d 505, 511-512, 490 N.E. 2d 1255, 1257-58 (1986) (in determining whether the "public shall be convenienced" by a proposed transaction under §7-102 of the PUA, the Commission has broad discretion to determine the factors to be considered).

The Commission recently reiterated the applicability of these principles in the context of a §8-406.1 application to construct a new electric transmission line. *Commonwealth Edison Co.*, Docket 13-0657 (Oct. 22, 2014), at 20-21. The Commission emphasized that what constitutes public convenience and necessity is within the Commission's discretion to determine in each case, and permits the consideration of a broad range of factors as applicable to the particular case; it is a question to be determined by the Commission from a "consideration of all the circumstances." Further, in making a §8-406.1 determination, the Commission must consider the impact that the proposed project will have on the public generally and on ratepayers specifically. *Id.* at 21.

II. Grain Belt Express' Compliance with §8-406.1 Pre-Filing Meeting and Notice, Application Content, and other §8-406.1 Requirements

A. Grain Belt Express' Position

Section 8-406.1 of the Act sets out the requirements for filing for a CPCN to construct a new high voltage electric service line and related facilities pursuant to that section. Grain Belt Express states that it met the requirements of §8-406.1 because its Application included a detailed description of the proposed project (§8-406.1(a)(1)(A)), specific engineering data (§8-406.1(a)(1)(B)), an application fee of $100,000 (§8-406.1(a)(2)), and information regarding the required pre-filing public meetings (§8-406.1(a)(3)). Additionally, Grain Belt Express published notice of its Application in the official state newspaper within 10 days after the filing (§8-406.1(d)) and established and maintained a dedicated website for the Project (§8-406.1(e)). Further, if the Commission grants the requested CPCN, then upon completion of construction, Grain Belt Express will pay, to each county in which the Project will be located, a one-time construction fee of $20,000 per mile of transmission line in that county (§8-406.1(h)).GBX IB at 22. Grain Belt Express included, as Attachment 15 to its Application, a schedule showing where all the information required by §8-406.1 is contained in the Application and direct testimony. GBX IB at 22, note 14.

Grain Belt Express states that it met the §8-406.1(a)(1)(A) requirement that its Application provide a detailed description of the proposed high voltage transmission line, including location maps and plot plans to scale showing all major components. GBX IB at 22. Grain Belt Express provided this information in Paragraph 7 and in Section VI of the Application and in Attachments 5 and 6 of the Application. Paragraph 7

provides a description of the entire Project route from Ford County, Kansas to Sullivan County, Indiana and the converter stations that will be used. Section VI of the Application is a more detailed description of the route and design characteristics of the Project. Application ¶¶ 63-80. GBX provided both a Proposed (primary) Route and a separate Alternate Route for the Project in Illinois, as required by §8-406.1(a)(1)(B)(viii). Attachment 4 to the Application is the legal description of the Proposed Route and Alternate Route and Attachments 5 and 6 are maps showing the Proposed Route and Alternate Route in Illinois. Additionally, GBX provided a detailed description of its Project and the required maps as GBX Exhibits 8.3 and 8.5. GBX IB at 22-23.

Grain Belt Express states that it met the §8-406.1(a)(1)(B) requirement that its Application provide detailed engineering data, including a detailed description of the project; a description of the conductor, structures and substations; the location of the site and right-of-way; assumptions, formulae and methods used to develop technical data; data regarding overhead line specifications; technical diagrams; and the primary and alternate right-of-way. GBX IB at 23. Grain Belt Express provided this information in Paragraphs 7, 63, and 71-75 of the Application, as well as Attachment 4 of the Application, which is the legal description of the Proposed Route and the Alternate Route. Additionally, Dr. Wayne Galli provided much of this information in his direct testimony and exhibits, GBX Exs. 2.0, 2.2 and 2.3. Grain Belt Express witness Timothy Gaul also provided information responsive to the §8-406.1(a)(1)(B) requirements in exhibits to his direct testimony and exhibits, GBX Exs. 8.0, 8.2, 8.4, 8.6. GBX IB at 23.

Grain Belt Express explains that it fulfilled the §8-406.1(a)(3) requirement that it hold at least three pre-filing public meetings concerning the Project in each county where the Project is to be located, beginning no more than six months prior to the filing of the Application. GBX IB at 23-24. GBX published notice of the public meetings in a newspaper of general circulation once a week for three consecutive weeks, beginning no earlier than one month prior to the first public meeting. Grain Belt Express also provided notice of the public meeting to the clerk of each county and also sent invitations to the Commission. 220 ILCS 5/8-406.1(a)(3). GBX demonstrated its compliance with these requirements in Paragraph 83 of its Application as well as in GBX Exhibits 7.2, 7.3, 7.4, 7.6 and 7.7. GBX IB at 24.

Grain Belt Express states that it held the required Public Meetings for the Project within six months preceding the date that Grain Belt Express filed its Application with the Commission. GBX Ex. 7.0 at 14; GBX Ex. 7.2; GBX IB at 24. The Potential Route Network in Illinois (from which the Proposed Route and Alternate Route were developed) encompassed the following counties: Christian, Clark, Cumberland, Greene, Macoupin, Montgomery, Pike, Scott and Shelby. GBX Ex. 7.0 at 14; GBX IB at 24. GBX held three Public Meetings in each of these nine counties through which the Proposed Route of the Project will pass, within the six month period preceding the filing date of its Application with the Commission. GBX Ex. 7.0 at 14; GBX Ex. 7.2; GBX IB at 24. Grain Belt Express states that it advertised each Public Meeting in at least one newspaper of general circulation in each county. GBX Ex. 7.0 at 14; GBX IB at 24. These notices were published for three consecutive weeks prior to each Public Meeting, beginning no more than one month before the first Public Meeting. GBX Ex. 7.0 at 14; GBX IB at 24. GBX provided a list of the newspapers in which these advertisements were published and a schedule of publication dates in GBX Ex. 7.3. Copies of each ad in the local newspapers where the advertisements were published, with notices of publication from

the newspapers, are provided in GBX Ex. 7.4. GBX IB at 24, note 18. As required by §8-406.1, invitations to each round of Public Meetings were sent to the Commission's Executive Director through U.S. Mail and email. GBX Ex. 7.0 at 15; GBX Ex. 7.6; GBX IB at 24-25. Additionally, written notice of each Public Meeting was also sent by U.S. Mail and email to the Clerk of each applicable county, as specified in §8-406.1. GBX Ex. 7.0 at 16; GBX Ex. 7.7; GBX IB at 25.

Grain Belt Express explains that in addition to providing notice in accordance with the above-described notice requirements of §8-406.1, it sent invitations by U.S. mail to all landowners along or near routes in the Potential Route Network in advance of each of the three rounds of Public Meetings. GBX IB at 25. The landowners to whom the invitations were mailed were identified by obtaining parcel ownership information from the Recorder of Deeds in each county. GBX states that invitations were mailed directly to more than 8,800 landowners in the vicinity of the Potential Route Network for the first round of Public Meetings. More than 4,000 invitations were mailed directly to landowners for the second round and more than 4,000 invitations were mailed for the third round of the Public Meetings. GBX Ex. 7.5; GBX IB at 25. GBX states that the invitation list was updated and reduced from the first Public Meeting to the second Public Meeting as the Potential Route Network was refined and fewer potential route segments remained under consideration. GBX Ex. 7.0 at 15; GBX IB at 25.

Grain Belt Express states that as specified by §8-406.1(e), it created a website that contains information regarding the Project. GBX Ex. 7.0 at 16, 18; Application ¶85; GBX IB at 25. Grain Belt Express maintained and actively updated the Project website since the beginning of the Project's development in 2010. GBX Ex. 7.0 at 10; GBX IB at 25. The website address was included in all public notices. GBX Ex. 7.0 at 10; Application ¶85; GBX IB at 25-26.

Grain Belt Express states that it published a notice of its Application in the official State newspaper within 10 days after filing its Application. Application ¶84; GBX IB at 26. GBX states that it filed its Application on April 10, 2015, and the notice was published in the official state newspaper on April 15, 2015. The Certificate of Publication and a copy of the official State newspaper page with the notice was filed with the Commission in this docket on April 29, 2015. GBX IB at 26.

Grain Belt Express states that concurrently with the filing of its Application, it provided the Chief Clerk of the Commission with its application fee of $100,000 as required by §8-406.1(a)(2). Application ¶82; GBX IB at 26. Further, Grain Belt Express explains that it will comply with §8-406.1(h), which specifies that upon completion of construction of a new high voltage electric service line for which a CPCN was granted pursuant to §8-406.1, the utility must pay a one-time construction fee to each county through which the line crosses, equal to $20,000 times the number of miles of the transmission line in that county. GBX IB at 26. Grain Belt Express states that it will provide the required payment to the counties through which the Project will cross. GBX Ex. 7.22 at 23-24; GBX IB at 26-27.

B. Other Parties' Positions

Staff concluded that Grain Belt Express has complied with the pre-filing and post-filing public meeting and public notice requirements, application content requirements, and fee payment requirements, of §8-406.1. Staff IB at 6-7. No other party contended,

in witness testimony or in briefs, that Grain Belt Express failed to comply with any of these requirements.

C. Commission Analysis and Conclusion

Based on its review of the record, the Commission concludes that Grain Belt Express met the statutory filing requirements of §8-406.1. Grain Belt Express provided the required detailed description of the high voltage transmission line, including location maps and plot plans to scale showing all major components. Grain Belt Express also provided specific engineering data, including a detailed description of the project; a description of the conductor, structures and substations; the location of the site and right-of-way; assumptions, formulae and methods used to develop technical data; data regarding overhead line specifications; technical diagrams; and the primary and alternate right-of-way. Grain Belt Express held the required pre-filing public meetings within the six month period preceding the date that it filed its Application, and published notice of each public meeting in at least one newspaper of general circulation in each county for three consecutive weeks prior to each meeting. Additionally, Grain Belt Express sent the required notice of each public meeting to the Clerk of each applicable county and to the Commission. Further, Grain Belt Express sent invitations by U.S. mail to all landowners along or near routes in the Potential Route Network in advance of each of the three rounds of Public Meetings. Grain Belt Express also maintained and actively updated its Project website since the beginning of the Project's development in 2010. Grain Belt Express paid the application fee of $100,000, and upon filing its Application, Grain Belt Express published notice of its Application in the official state newspaper within 10 days. Additionally, Grain Belt Express has established that it will pay, to each county in which the Project will be located, a one-time construction fee of $20,000 per mile of transmission line in that county upon completion of construction. The Commission notes that Staff concluded that Grain Belt Express has complied with the filing requirements of §8-406.1 and that no other party has contended that Grain Belt Express failed to comply with any of these requirements.

III. Grain Belt Express Right to Utilize §8-406.1 as an Entity that is not a Public Utility

A. Grain Belt Express' Position

It is Grain Belt Express' position that in denying the motions to dismiss and the motions to reconsider its ruling on the motions to dismiss, the Commission correctly rejected the argument that this case cannot proceed under §8-406.1 because Grain Belt Express is not a public utility. Grain Belt Express states that it fully explained and properly defended its right to utilize §8-406.1 for its Application in the four responses it filed in opposition to the motions to dismiss and the motions for reconsideration.[2] GBX IB at 27-28.

[2] The four responses are: Grain Belt Express Clean Line LLC's Response to Motions to Dismiss (filed June 3, 2015); Grain Belt Express Clean Line LLC's (1) Motion to File Reply to Commission Staff's Response and (2) Reply to Staff's Response to Motions to Dismiss (filed June 12, 2015); Grain Belt Express Clean Line LLC's Response to Motions to Reconsider the Commission's Decision on Motions to Dismiss (filed July 17, 2015); and Grain Belt Express Clean Line LLC's Reply to Responses of Branch Properties, Mary Ellen Zotos and Rockies Express Pipeline LLC to Motions to Reconsider (filed July 20, 2015).

Grain Belt Express states that there is no jurisdictional issue with respect to proceedings under §8-406.1 in this docket. GBX states that the Commission has jurisdiction to consider, hold hearings on and grant Grain Belt Express's Application because the Application requests relief that the Commission has statutory authority to grant: a CPCN to construct a proposed high voltage electric transmission line and related facilities and to conduct an electric public utility business in connection with that line. GBX states that "In determining whether an action falls within the jurisdiction of the Commission, courts have consistently focused on the nature of the relief sought rather than the basis for seeking relief," citing *Sheffler v. Commonwealth Edison Co.*, 399 Ill.App.3d 51, 68 (1st Dist. 2010) (emphasis added); and, *Duricka v. Commonwealth Edison Co.*, 2015 IL App (1st) 140076, ¶36. GBX states that an effort to create an issue about the *means* by which the Commission is adjudicating Grain Belt Express' Application – that is, whether Grain Belt Express must proceed under one provision of the Act (§8-406.1) or anther (§8-406) – does not implicate the Commission's jurisdiction. GBX IB at 28.

Grain Belt Express contends that it has properly requested that its Application be considered pursuant to the process provided for in §8-406.1, even if Grain Belt Express may not be a public utility until the Commission grants it the CPCN it requests in this Proceeding.[3] Grain Belt Express states that under applicable rules of statutory construction, §8-406.1 must be read in concert with §8-406. GBX states that the Commission has not limited the application process under §8-406 to entities that were already public utilities; rather, the Commission has granted CPCNs to applicants that were not existing public utilities at the time of their filings, and the Commission has found no legislative intent in §8-406 to preclude new entrants that did not satisfy the definition of "public utility" from requesting and being granted a CPCN to construct and operate a public utility facility and conduct a public utility business. GBX states that in the *Rock Island* CPCN case, the Commission concluded that an entity that is not yet a public utility can apply for and be granted a CPCN for a new transmission line pursuant to §8-406. GBX states that the General Assembly has amended the Act many times during the period in which the Commission has issued the CPCNs pursuant to §8-406 to applicants that were not yet public utilities, but the General Assembly has taken no action to limit §8-406 to existing public utilities. GBX IB at 29.

Grain Belt Express states that there is nothing to indicate a legislative intent to limit the availability of §8-406.1 to only existing public utilities. GBX states that In describing who may request and be granted a CPCN under its provisions, both §8-406.1 and §8-406, use only the term "public utility." Neither section uses a term such as "applicant" or "entity." GBX states that given that the General Assembly used the term "public utility" in both §8-406 and §8-406.1 to describe the applicant for a CPCN under

[3] GBX cites *Board of Trustees of Teachers Retirement Sys. v. West*, 395 Ill. App. 3d 1028, 1035 (4th Dist. 2009) (legislative intent should be ascertained from a consideration of the entire act, its nature, its object, and the consequences that would result from construing it one way or another; courts must not construe words and phrases in isolation, but rather should construe them in light of other relevant portions of the statute); *Black Hawk Motor Transit Co. v. ICC*, 398 Ill. 542, 552 (1947) (it is an established principle of statutory construction that the legislative intention must be deduced from the entire statute and every material part of it taken and construed together); *Inter-State Water Co. v. City of Danville*, 379 Ill. 41, 46 (1942) (each part or section of [the Act] should be construed in connection with every other part or section and not only the language used but the object to be attained by the statute should be considered).

the respective sections, there is no more basis to conclude that the General Assembly intended to preclude new entrants from requesting and obtaining a CPCN using §8-406.1 than there is to conclude that the General Assembly intended to preclude new entrants from requesting and obtaining a CPCN under §8-406. Grain Belt Express argues that, instead, a proper construction of these statutory provisions is that in enacting §8-406.1, the General Assembly's intention was solely to create an alternative, expedited procedure to §8-406 for considering and granting a request for a CPCN for a new high voltage electric service line, which is available on condition that the applicant also undertakes and complies with the extensive additional notice, process and cost obligations in §8-406.1. GBX points out that there is no difference between §8-406 and §8-406.1 as to the substantive criteria Grain Belt Express must satisfy to receive the requested CPCN, and there is nothing to preclude Grain Belt Express from invoking §8-406.1 in its Application here even if it is not now, but will be upon issuance of a CPCN, a public utility, just as it might under §8-406. GBX IB at 29-30.

Grain Belt Express states that it litigated the motions to dismiss and to reconsider under the construct that it is not currently a "public utility" as defined in §3-105, because Grain Belt Express has not yet been granted a CPCN. GBX states that to represent itself as a "public utility" before receiving a CPCN could place it in violation of §8-406(a). Grain Belt Express states that while it does not presently have a CPCN from the Commission and is not presently providing public utility service or operating a utility facility in Illinois, it does "own [or] control . . . within this State . . . property . . . to be used for or in connection with . . . the transmission of electricity" (§3-105). Grain Belt Express Ex. 7.0 at 27 (Grain Belt Express holds option on the converter station site in Clark County); Grain Belt Express Ex. 11.10 (dollar amounts of property, plant and equipment and other assets owned by Grain Belt Express as of February 28, 2015); Tr. 249. GBX IB at 30.

Grain Belt Express also maintains that it is the construction and operation of the proposed transmission line authorized by the CPCN granted by the Commission that will make Grain Belt Express a "public utility" as defined in §3-105 of the Act, that is, a company that "owns or controls any franchise, license, permit or right to engage in: the…transmission….of…electricity." For this reason, Grain Belt Express states that it did not and will not need to separately request a CPCN as a public utility pursuant to §8-406(a) in order to operate its transmission line as a public utility. Grain Belt Express also points out that in several previous orders issued under §8-406.1, the Commission has granted the applicant a CPCN for (1) the construction, operation and maintenance of the proposed new high voltage electric service line and related facilities, and (2) the transaction of an electric public utility business in connection therewith. GBX states that this is the same authority that it has requested in its Application. GBX IB at 30-31.

Grain Belt Express' Response to CCPO

Grain Belt Express responded to CCPO's argument that it is at a disadvantage due to the fact that this case is proceeding under a procedural schedule required to meet the statutory deadline of §8-406.1. GBX states that the difficulty of the procedural schedule has no bearing on the legal issue of whether Grain Belt Express can file its Application for a CPCN, and have it processed and decided, pursuant to §8-406.1. GBX RB at 11.

Grain Belt Express' Response to IAA

Grain Belt Express disputed IAA's assertions that "GBX admits that it is not a public utility under the PUA." IAA IB at 12, 24. Grain Belt Express states that it has not "admitted" that it is not a public utility. GBX states that in the paragraph of its Application cited by IAA, Grain Belt Express was simply distinguishing status as a "public utility" from status as an "electric utility" as those two terms are defined in the Act. However, Grain Belt Express states that it is not representing itself to be a public utility at this time because it has not yet been granted a CPCN by the Commission. Indeed, to do otherwise would potentially place Grain Belt Express in violation of §8-406(a). Grain Belt Express states that it will consider itself to be a public utility in Illinois when it is granted a CPCN for the Project, as a CPCN is "[a] franchise, license, permit or right to engage in . . . the . . . transmission . . . of . . . electricity." 220 ILCS 5/3-105. GBX states, however, that in terms of the literal application of the definition of "public utility" in §3-105 of the Act, Grain Belt Express does "own[or] control[] . . . within this State . . . for public use, . . . property . . . to be used for or in connection with . . . . the . . . transmission . . . of . . . electricity." GBX IB at 30-31; GBX Ex. 7.0 at 27 (Grain Belt Express holds option on the converter station site in Clark County); GBX Ex. 11.10 (dollar amounts of property, plant and equipment and other assets owned by Grain Belt Express as of February 28, 2015); Tr. 249-250. GBX RB at 11-12.

Grain Belt Express states that the argument at pages 12-24 of IAA's Initial Brief (§III.B.2 and III.B.3), is essentially the same argument that IAA made in Docket 12-0560 in contending that Rock Island could not apply for or be granted a CPCN under §8-406 of the Act because Rock Island was not yet a public utility in Illinois. GBX states that the Commission rejected that argument in Docket 12-0560 (Order in Docket 12-0560 at 5-8), and is now defending that conclusion in the Appellate Court in response to IAA's appeal. Thus, the IAA is here rearguing an issue that it lost in Docket 12-0560. Further, GBX states that the question of whether or not Grain Belt Express is currently a public utility as defined in the Act begs the real question under §8-406.1, which is whether the General Assembly, in enacting §8-406.1 in 2010, intend to preclude an entity that is not currently a "public utility" from filing an application pursuant to §8-406.1 for a CPCN to construct a new high voltage electric service line and related facilities, and to have its case processed, considered and decided pursuant to that Section. Grain Belt Express states that for the reasons stated in its previous pleadings on the motions to dismiss and motions to reconsider, and in §III of its Initial Brief, the answer to that question is "no." GBX RB at 12-13.

Although contending that IAA's attempt to reargue the Commission's ruling in Docket 12-0560 is beside the point of the §8-406.1 issue, Grain Belt Express addressed several of the arguments at pages 12-24 of IAA's Initial Brief. In response to IAA's contention that in a 1967 amendment to the Act, the General Assembly intended to limit the scope of the term "public utility," GBX states that a review of the 1967 amendatory language reveals that the primary purpose of the amendment was to define the term "telephone cooperative" and to divest the Commission of authority to inquire into the financial affairs of telephone cooperatives. The amendment revised the definition of the term "public utility" to exclude telephone cooperatives. The amendment moved the enumeration of activities that public utilities engage in to the beginning of the definition; the statute prior to amendment had placed the numerous exclusions at the beginning of the definition and the definition itself at the end, so the reorganization of the section

provided better clarity. The amendment also removed some archaic language, replacing "ten-per-centum" with "10%", "such" with "those", "said" with "that", "shall have the power to" and "shall have the authority to" with "may", and "shall not be in excess of" with "does not exceed." GBX states that one of the outdated terms removed is the term that IAA's argument is premised on, "now or hereafter," which is a textual relic of the original adoption of the Act in 1913. Grain Belt Express states that there is nothing in the specific change to the definition that IAA points to in the 1967 amendment that evidences a legislative intent to change the meaning of "public utility" in the manner IAA contends. GBX RB at 13.

Grain Belt Express further states that over the ensuing 48 years since the 1967 amendment cited by IAA, the Commission has not construed the Act as IAA argues it should be, but rather has granted CPCNs (and certificates of telecommunications service authority under the comparable certificate provision of the Telecommunications article (Art. XIII)) to applicants that owned no utility or telecommunications property, plant and equipment in Illinois at the time they applied for and received a certificate. GBX cited a number of examples of such cases. GBX states that IAA has not cited any Commission order in which an application for a CPCN was denied because the applicant, at the time of the application (or time of the order), did not yet own, control, manage or operate any plant, equipment or property in Illinois used or to be used to provide the proposed utility service and therefore did not yet fall within the definition of "public utility." GBX also contends that despite the 1967 amendment cited by IAA, the Commission has consistently applied the definition of "public utility" and the certificate sections of the Act in a manner contrary to IAA's construction. GBX states that although the General Assembly has enacted many amendments to the Act since 1967, it has enacted none that indicate disagreement with or intent to change the Commission's construction and application of the sections of the Act relevant to this issue. GBX states that this legislative inaction indicates legislative acquiescence in the Commission's interpretation and application of the statute. GBX cites the following cases in support of this proposition: *People ex rel. Birkett v. City of Chicago*, 202 Ill. 2d 36, 53 (2002); *People ex rel. Spiegel v. Lyons*, 1 Ill. 2d 409, 414 (1953); *DuPage Cnty. Election Comm'n v. State Bd. of Elections*, 345 Ill. App. 3d 200, 214-15 (2d Dist. 2003). GBX RB at 13-14.

Grain Belt Express also responded to IAA's argument that "Under a Similar Statutory Definition of Public Utility in Another State, Rock Island's [sic] Sister Company was Denied Approval Utilizing the Same Considerations Urged Here." This argument refers to a previous decision of the Arkansas Public Service Commission ("Arkansas PSC") denying, without prejudice, the request of another Clean Line subsidiary, Plains and Eastern Clean Line LLC ("P&E"), for a certificate as a public utility. IAA IB at 18. GBX states that the Arkansas PSC decision is distinguishable and not applicable here for several reasons: (1) the applicable Arkansas and Illinois statutes are not identical; (2) the fact that the Arkansas PSC could reach an absurd, unjust and unreasonable construction of its own statute provides no support for this Commission (or an Illinois court) to do the same regarding the Public Utilities Act; (3) orders from other jurisdictions cannot be the basis for a finding by this Commission, which has no authority to defer to the judgment of the commission of another state; and (4) the facts in the Arkansas proceeding and in Docket 12-0560 (and in this case) are inapposite. GBX states, with respect to that last point, that the Arkansas PSC order noted – contrary to the facts in both Docket 12-0560 and in this case – that P&E's application

"did not seek authorization to begin construction of a transmission line, which authorization Clean Line will seek pursuant to a separate application." The Arkansas PSC found this fact to be outcome determinative, stating that its "decision was based on the fact that it [could not] grant public utility status to Clean Line [P&E] based on the information about its current business plan and present lack of plans to serve customers in Arkansas." Further, the Arkansas PSC stated that its decision was without prejudice and that if and when P&E was able to provide more concrete plans satisfying the PSC's concerns as expressed in its order, the PSC would revisit the matter in a new docket. Grain Belt Express states that the Arkansas PSC's decision suggests that the Arkansas PSC, like this Commission, does not consider a present lack of ownership of utility facilities to be a bar to obtaining a CPCN. GBX RB at 14-15.

Grain Belt Express contends that IAA's citation of *In re American Transmission Co., LLC*, Docket 01-0142 (Jan. 23, 2003), does not support IAA's construction of the Act or its assertion that the Commission has recognized that current ownership of public utility infrastructure in Illinois is an element necessary to meet the public utility definition. IAA IB at 20-21. GBX states that American Transmission, which was formed through a spin-off of transmission assets by its owners (several Wisconsin utilities and public power entities) did own transmission assets at the time of applying for a CPCN, but the Commission did not rule in that case (nor did any party argue) that ownership of existing facilities was a statutory prerequisite to applying for and receiving a CPCN. GBX reiterates that IAA has not cited any Commission order in which an application for a CPCN was denied because the applicant, at the time of the application (or time of the order), did not yet own, control, manage or operate any plant, equipment or property in Illinois used or to be used to provide the proposed utility service and therefore did not yet fall within the definition of "public utility." GBX RB at 15-16.

Grain Belt Express responded to IAA's quotation of three sentences from a filing made by Rock Island in Docket 10-0579. Grain Belt Express states that the quote provided by IAA is incomplete and presented out of context. The quote provided by IAA ends with this sentence: "Read literally, this sentence [the first sentence of §8-406.1] requires an entity to be a public utility in order 'to apply' for a certificate to construct a transmission line under §8-406.1." IAA IB at 23. GBX points out that, shortly after the sentence quoted by IAA, on the same page of Rock Island's filing in Docket 10-0579, Rock Island stated: "Certainly, the procedures of §8-406.1 should be equally available to a new transmission utility like Clean Line as they are to incumbent electric utilities." GBX RB at 16.

Grain Belt Express' Response to LACI

Grain Belt Express responded to LACI's argument that the procedural schedule in a §8-406.1 case is difficult. LACI IB at 10-11. GBX reiterated that this argument has no relevance to the question of whether Grain Belt Express' Application for a CPCN can lawfully be filed, processed, considered and decided under §8-406.1, and provides no support for LACI's contention that an applicant that is not already a "public utility" cannot lawfully file for and receive a CPCN to construct a new high voltage electric service line pursuant to §8-406.1. GBX RB at 16-17.

Grain Belt Express responded to LACI's argument that Grain Belt Express no longer needs a "quick order" in this proceeding in light of the Missouri PSC's denial of Grain Belt Express' request for a certificate. LACI IB at 12. GBX acknowledges that it

will now take additional time to obtain necessary authority to construct the Project in Missouri, whether through a new proceeding at the Missouri PSC or through obtaining siting authority in Missouri pursuant to §1222 of the Federal Energy Policy Act of 2005. GBX states, however, obtaining a CPCN from this Commission is also a necessary step in securing all the authorizations needed to construct the Project. Further, GBX emphasizes that longer proceedings (particularly proceedings with no deadline) require more resources (including Commission resources, not just the applicant's resources) and more expense. GBX states that In §8-406.1, the General Assembly has established a process for requesting and obtaining a CPCN to construct a new high voltage electric service line which requires that the case be heard and decided within 225 days, provided that the applicant complies with other requirements of §8-406.1 that are not required of an applicant under §8-406. Grain Belt Express states that it has complied with the requirements of §8-406.1 concerning holding public meetings, providing public notice, providing technical and engineering information in its Application, developing and providing distinct primary and alternate routes, paying a substantial filing fee, and committing to pay construction impact fees to the counties in which its Project will be built. Therefore, Grain Belt Express is entitled to have an order issued on its request for a CPCN within the time period specified in the statute. GBX RB at 17-18.

In further response to LACI and others, Grain Belt Express points out that in the briefing on both the motions to dismiss and the motions for reconsideration, it suggested that this case could be converted to a §8-406 case but with the Commission directing that the case be scheduled so that it could be presented to the Commission for a decision by a reasonable deadline such as within eleven months (*i.e.*, the time within which the Commission has historically processed and decided complex utility rate cases) from the date the Application was filed, April 10, 2015. GBX states that this suggestion, if accepted, would have added approximately four months of time to the procedural schedule, which would have accommodated additional rounds of rebuttal and surrebuttal testimony, correspondingly more time for discovery, and a longer briefing schedule. GBX states that while this suggestion was directed to the Commission, in fact none of LACI, IAA, CCPO and MEZ voiced any support for this suggestion. That is, GBX states, none of these intervenors were willing to commit to a "more reasonable" procedural deadline and schedule for this case. GBX RB at 18.

Grain Belt Express responded to LACI's concern that conducting this case under §8-406.1 is "prejudicial" to intervenors because §8-406.1(i) specifies that an order under §8-406.1 granting a CPCN for a new high voltage electric service line must also include an order pursuant to §8-503 authorizing or directing the applicant to construct the proposed transmission line. LACI IB at 11. GBX notes that LACI apparently believes this is "prejudicial" because an applicant must obtain authority pursuant to §8-503 to construct its project in order to be able to then request and obtain from the Commission an order pursuant to §8-509 of the Act authorizing the applicant to use eminent domain to acquire easements. *Id.* GBX states, however, that this alleged "prejudice" exists in any §8-406.1 case, regardless of whether the applicant is an established, incumbent public utility like Ameren Illinois or a new entrant like Grain Belt Express. Grain Belt Express states that this argument also has no bearing on whether an applicant that is not an established public utility can file a request to construct a new high voltage electric service line, and have the request processed, considered and decided, pursuant to §8-406.1. GBX RB at 18-19. Further, Grain Belt Express reiterates that it has not

requested eminent domain authority in this case; that it has not started to negotiate with landowners in Illinois to acquire easements and will not initiate landowner negotiations until after the order is issued in this case granting a CPCN and approving a route in Illinois (Tr. 141-142, 169); and that it will need to engage in a considerable period of negotiations with landowners to acquire easements before it would be in a position to file a new application with the Commission pursuant to §8-509 seeking eminent domain authority for easements on those parcels it has not been able to acquire voluntarily, and be able to demonstrate in that proceeding that it has satisfied the Commission's established criteria for granting eminent domain authority. GBX RB at 18-19.

Grain Belt Express responded to LACI's argument that §8-406.1 (in contrast to §8-406, according to LACI) does not give the applicant the right to conduct or transact business as a public utility. LACI IB at 12. Grain Belt states that LACI's argument is incorrect, for several reasons. First, Grain Belt Express is asking for the same certificate authority the Commission has granted to applicants in previous §8-406.1 cases: to construct, operate and maintain the proposed new high voltage electric service line and related facilities, and to transact an electric public utility business in connection therewith.[4] Second, GBX states that it would be an absurd construction of §8-406.1 (as well as contrary to the prior Commission orders GBX cites) to conclude that it only allows the Commission to authorize construction of a transmission line, but not operation of the transmission line once constructed. GBX states that the General Assembly cannot have intended such an absurd and unreasonable result. Third, GBX states that the grant of a CPCN to construct the new high voltage electric transmission line and related facilities makes the certificate holder a public utility as defined in §3-105, because the CPCN is a franchise, license, permit or right to engage in the transmission of electricity, and it authorizes the certificate holder to own property, plant or equipment in this State to be used for the transmission of electricity. Fourth, GBX states that LACI has not identified any additional evidence that needs to be presented, but has not been presented, in this case to support a finding that Grain Belt Express should be authorized to conduct a transmission public utility business using the Project. GBX RB at 19-20.

B.-X. [Other Parties' Positions]

Y. Commission Analysis and Conclusion

Having considered another set of arguments from the parties on this issue, and having again reviewed the filings submitted in connection with the original motions to dismiss and the motions to reconsider, the Commission comes to the same conclusion that it reached in connection with the motions to dismiss and motions to reconsider, that Grain Belt Express could file, and the Commission can consider, process and decide, the Application for a CPCN for a proposed new high voltage electric service line pursuant to §8-406.1 of the Public Utilities Act. The Commission clearly has authority to consider and act on applications for CPCNs for new electric transmission lines, and an application for a CPCN under §8-406.1 does not involve any new or different substantive subject matter for the Commission's consideration and decision as

[4] Grain Belt Express cites the following orders: *Ameren Illinois Co.*, Docket 13-0115 (Sept. 4, 2013), at 18; *Ameren Transmission Co. of Ill.*, Docket 12-0598 (Aug. 20, 2013), at 134; *Ameren Illinois Co.*, Docket 12-0154 (Sept. 6, 2012), at 18; and *American Transmission Co. LLC*, Docket 11-0661 (April 10, 2012), at 10.

compared to an application filed under §8-406. The substantive criteria that the Commission must find are met in order to grant a CPCN for a new high voltage electric transmission line and related facilities are the same in §8-406.1 as in §8-406, being set forth in subsection (f) of the former section and subsection (b) of the latter section. Additionally, although Section 8-406 could be read as allowing only existing "public utilities" (as defined in the Act) to file applications for and receive CPCNs for new construction, the Commission has frequently granted certificates to new entrants that are not currently "public utilities" and do not own, control or operate any public utility facilities in the State of Illinois at the time of filing or receiving the application. With this background, the Commission notes that the principal differences between §8-406.1, enacted in 2010, and §8-406, are that (1) the applicant filing under §8-406.1 must conduct pre-filing public meetings in the counties in which the transmission line will be located, give notice of the meetings to the public, the County clerks and the Commission, include significant technical and engineering information with its application, pay a $100,000 filing fee, publish notice of its application in the official State newspaper, provide both a primary route and an alternate route for the transmission line, and commit to pay a construction fee to each County of $20,000 per mile of the transmission line in the County, none of which are required of an applicant filing under §8-406, and (2) the §8-406.1 application must be decided within 150 days, or 225 days if extended by the Commission. Given the differences between §8-406 and §8-406.1 and the wording of and historical practice under §8-406, referred to above, the Commission sees no basis to conclude that the General Assembly, in enacting §8-406.1, intended to preclude applicants that are not already "public utilities" in Illinois from using this section. Rather, the Commission sees the General Assembly as creating an alternative process for applicants that enables them to obtain a decision by a date certain on a request for a CPCN for a new high voltage electric service line, but in return for which the applicant must engage in significant pre-filing activities, provide significant additional information with the application, and incur significant costs, that are not required of a §8-406 applicant. Further, the significant pre-filing activities required of a §8-406.1 applicant are intended to widely publicize the proposed new transmission line within the six month period prior to filing the application, and to obtain the comments and input of potentially impacted landowners and other stakeholders; and the significant requirements for including specific engineering and technical information about the transmission line with the application, along with providing both a primary and an alternate route, are intended to give the Commission and interested parties important information about the proposed transmission line at the very start of the Commission proceeding. Both of these requirements are consistent with completing the Commission proceeding within a specific time period specified by the statute.

The Commission also does not accept the argument that even if §8-406.1 can be used to authorize Grain Belt Express to construct the proposed new high voltage electric transmission line and related facilities, it cannot authorize Grain Belt Express to operate and maintain the line and to conduct business as a public utility. First, it would be an absurd construction of §8-406.1 to conclude that under it, the Commission can authorize the construction of a new transmission line but cannot authorize the applicant to operate and maintain, or otherwise use, the transmission line once it is constructed. Such a construction would defeat the very purpose of §8-406.1. Second, the issuance of a CPCN to Grain Belt Express for the Project will make Grain Belt Express a public utility as defined in §3-105 of the Act. Third, no party has identified, nor has the Commission identified, any additional requirements in §8-406 for certification as a public

utility that are not also embodied in §8-406.1. Nor has any party identified any additional evidence, not presented in this case, that the Commission would have to consider and make findings on to issue Grain Belt Express a CPCN as a public utility. The Commission notes that in order to grant the requested CPCN pursuant to §8-406.1(f), the Commission must make the same findings required under §8-406(b) relating to the applicant and its proposed service, including that Grain Belt Express is capable of managing and supervising the construction of the transmission line, that Grain Belt Express is capable of financing the construction, that the Project will promote the public convenience and necessity, and that the transmission line will be operated for public use. Further, the authorization requested by Grain Belt Express, to construct, operate and maintain the proposed transmission line and related facilities and to conduct a transmission public utility business in connection therewith, is the same authority that the Commission has granted to applicants in previous §8-406.1 cases.

Finally, the Commission rejects arguments that granting a CPCN to Grain Belt Express under §8-406.1 is inappropriate because that section also requires that the applicant receive authority to construct the transmission line pursuant to §8-503 of the Act and this would place Grain Belt Express on a "fast track" to eminent domain authority. Grain Belt Express has not requested eminent domain authority in this case; in order to obtain eminent domain authority (if it proves to be necessary), Grain Belt Express will have to file a separate proceeding under §8-509 of the Act; and in that new proceeding, Grain Belt Express would need to demonstrate that it has met the statutory requirements and the Commission's criteria for a grant of eminent domain authority for specific properties. Further, the record shows that Grain Belt Express has not even started to contact landowners in Illinois to negotiate for the acquisition of easements. It is quite apparent to the Commission that Grain Belt Express is not imminently going to be in a position to request from the Commission, and receive, authorization to use eminent domain pursuant to §8-509.

IV. Section 8-406.1(f) Criteria for a Certificate

A. Section 8-406.1(f) – Grain Belt Express' Promotion of the Public Convenience and Necessity

1. Grain Belt Express' Position

It is Grain Belt Express' position that the record demonstrates that the Project will promote the public convenience and necessity. GBX states that, although the specific criteria of §8-406.1(f) are not the only factors to be considered in determining whether a new high voltage electric service line will promote the public convenience and necessity, the Project will promote the public convenience and necessity because it is necessary to provide adequate, reliable and efficient service to customers and will promote the development of an effectively competitive electricity market. GBX states that the Project will provide the necessary transmission infrastructure and service, which is lacking today, to enable 4,000 MW of new, high-capacity factor wind generation plants in western Kansas to access the Illinois electricity markets and to provide additional supplies of low cost electricity from renewable resources to those markets. GBX states that the introduction of the new, low-cost supply will increase competition in the Illinois wholesale electricity markets, will reduce LMPs and the cost to serve load, and will result in lower prices for retail electricity customers. Also, the new renewable generation accessing the market will increase the supply of renewable energy credits

("RECs") in the regional marketplace, will exert downward pressure on the price of RECs, and will help to ensure that RPS requirements in Illinois and other PJM states can be met in a cost-effective manner, without exceeding RPS rate caps. GBX states that the competitive supply and pricing benefits the Project and the new connected wind generation will bring to Illinois electricity markets are not limited to the markets for electricity from renewable resources, but extend to the markets for electricity generally. GBX states that the low-cost electricity that the Project will deliver into the Illinois markets will be competitive with, and in fact less expensive than, projected market prices for electricity and with alternative potential sources of new generation supply such as natural gas-fueled generation and new wind generation that could be built in Illinois. GBX IB at 31-32.

Grain Belt Express states that, additionally, the injection of the new wind energy supplies through the Project will improve the reliability of the Illinois bulk electric system. GBX Ex. 6.0 at 3. GBX states that, based on analysis of a wide range of scenarios, the Project will (1) result in a substantial reduction in loss of load expectation ("LOLE") in the State of Illinois; and (2) provide incremental annual effective load carrying capability ("ELCC") ranging from 590 MW to 1550 MW (depending on the scenario studied), with an average incremental ELCC value of 986 MW, and an average capacity benefit from the Project and the new wind generation of 28%. GBX Ex. 6.0 at 11. According to GBX, this means that the Project's injection of wind generation into the PJM grid has approximately the same reliability benefit for Illinois of the addition of a large conventional thermal power plant. GBX states that wind energy injections from the Project into the PJM grid will positively impact resource adequacy and electric reliability in the State of Illinois. *Id.* at 11-12; GBX IB at 32-33.

Grain Belt Express contends that in addition to the benefits that are manifested in the Project's satisfaction of the §8-406.1(f)(1) criteria, the Project will promote the public convenience and necessity in many other ways. First, the Project will provide significant environmental benefits. The connected western Kansas wind generation will significantly reduce emissions of carbon dioxide, nitrogen oxide, sulfur dioxide and mercury, and will substantially reduce the quantities of water that would have been required by fossil-fueled generation. GBX Ex. 1.0 at 7; GBX Ex. 11.0 at 33-34; GBX Ex. 3.4. GBX states that, for example, in its first year of operation, the Project is projected (depending on the economic and load growth scenario analyzed) to reduce nitrogen oxide emissions by 6,549 to 12,807 tons, to reduce sulfur dioxide emissions by 10,237 to 28,021 tons, to reduce carbon dioxide emissions by 10.4 million to 16.8 million tons, and to reduce mercury emissions by 105 to 234 pounds, in the eastern U.S. GBX Ex. 3.4. GBX states that while the new wind plants will be located in western Kansas, by virtue of the Project delivering their output into the PJM and MISO grids, the new wind generation will displace fossil-fueled generation in the PJM and MISO footprints. GBX states that the environmental benefits of reduced emissions are regional due to the public nature of clean air and the ability of emissions from fossil-fueled generation sources in one area to migrate to another area (for example, carbon dioxide emissions contribute to the atmospheric concentration of greenhouse gases regardless of the location of the sources of the emissions). GBX Ex. 11.0 at 19; GBX IB at 33-34.

Grain Belt Express states that, additionally, by connecting wind farms located in western Kansas directly to PJM, the Project will increase the geographic diversity of wind farms in the PJM dispatch, which can make wind integration into the total

generation supply mix more reliable and less costly. GBX explains that wind integration costs refers to the costs associated with conventional power plants, such as natural gas-fueled plants, having to adjust their output, or "ramp," to accommodate wind energy; smaller and less frequent ramps by conventional plants means lower wind integration costs. GBX Ex. 11.0 at 32. Most of the existing wind farms in PJM are located in Illinois and Indiana. GBX states that dispersing the locations of wind farms geographically is a very effective way of reducing the variability of their energy output. Because the wind does not blow heavily at the same time in all places, a geographically diversified group of wind plants generates electricity in a more consistent manner than a geographically concentrated group. GBX states that the combined energy output of geographically diverse wind farms is less variable, and has fewer wind integration costs, than the output of geographically concentrated wind farms. GBX Ex. 11.0 at 30. GBX states that the times when the wind is blowing in western Kansas are, to a high degree, statistically independent from the times when the wind blows in the best wind resource locations in Illinois and Indiana; the wind often blows heavily in western Kansas when it is not blowing heavily in Illinois and Indiana, and vice versa. *Id*. at 31-32; GBX Ex. 11.5. Thus, GBX contends, adding wind farms in Kansas to the existing portfolio of wind farms in Illinois and Indiana will create a more geographically diverse portfolio that is likely to result in steadier production, and smaller ramps by conventional power plants on the grid, than a portfolio of wind farms all located in the same geographic location. GBX states that fewer and smaller ramps reduces the cost for the grid to integrate wind energy, and allows wind energy to make a more consistent and reliable contribution to meeting electric demand. GBX Ex. 11.0 at 32; GBX Ex. 1.0 at 6, 26; GBX IB at 34-35.

Further, Grain Belt Express states that by allowing a significant amount of new wind generation capacity to access the Illinois electricity markets, the Project helps to protect customers against the volatility of the prices of fuels used to generate electricity. GBX states that new transmission alleviates the negative impacts of fuel price fluctuations on consumers by making it possible to buy power from other regions and move it efficiently on the grid; and that new wind generation, which the Project will connect to the Illinois electricity markets, provides significant hedging benefits against fuel price fluctuations. Wind generation plants have zero fuel costs, whereas the prices of fossil fuels used for generation, particularly natural gas, are likely to continue to fluctuate in the future. WOW Ex. 1.0 at 29-30. Moreover, because wind plants have no fuel costs and most of their costs are the up-front capital costs, wind generators can enter into long-term supply contracts with customers, at fixed prices, which is attractive to buyers. Infinity Ex. 1 at 8; WOW Ex. 1.0 at 29-30; GBX IB at 35.

Finally, Grain Belt Express states that the Project will be a significant construction project in the State of Illinois. The estimated construction cost for the transmission line in Illinois, based on the Proposed Route, is $399.1 million, not including the converter station in Clark County, Illinois. GBX Ex. 9.0 at 20. The converter station will be an additional $300 million investment. GBX Ex. 7.0 at 32-33. According to GBX, construction of the Project in Illinois is projected to create approximately 1,481 jobs over the three-year construction period, to increase labor income by $104.6 million, and to increase overall output in Illinois by $271.2 million. GBX Ex. 5.0 at 3; GBX Ex. 5.2 at 3. GBX states that additional employment and economic activity also will be created in Illinois by the construction of the new wind farms in Kansas, as Illinois has a number of manufacturing and other firms that are involved in the supply chain for components of wind generation facilities. GBX Ex. 5.0

at 3-5; GBX Ex. 5.2 at 4-5, 15 (Table 4.1 lists numerous companies located in Illinois that manufacture components for wind generation facilities); GBX Ex. 11.0 at 19. GBX states that in addition to the studies presented by its witness Dr. Loomis, the employment and economic benefits of the construction project were also recognized by James Bates, Business Manager for Local Union No. 51 of the IBEW, testifying on behalf of IBEW Local Nos. 51 and 702. IBEW Ex. 1.0 at 4-5, 7; Tr. 739. GBX states that there will also be fiscal benefits from the construction and operation of the Project, *i.e.*, increased income tax and property tax payments to the State and to local governments in the Project area. GBX Ex. 5.0 at 5-6; GBX Ex. 5.2 at 4; GBX IB at 35-36. Further, Grain Belt Express states that it is committed to taking all feasible steps to maximize the job creation and local income benefits within the Project area and within Illinois. Grain Belt Express states that it is working to identify Illinois contractors and suppliers with the ability to participate in the development, construction and maintenance of the Project, including working to ensure that potential contractors and suppliers receive notification when phases of the Project are put out for bid. GBX has held local business opportunity meetings to inform Illinois businesses about the Project, and approximately 145 Illinois businesses have expressed interest in performing work on the Project and have provided information on their capabilities. GBX Ex. 7.0 at 33-34; GBX IB at 36.

Grain Belt Express states that the many benefits described above will not be realized without the construction of the Project. GBX contends that the new, high capacity factor wind plants in western Kansas will not be built without an efficient, direct transmission connection to enable them to deliver their output to load and population centers in PJM and MISO; the existing AC transmission grid is inadequate, and its use is too costly, for this purpose. GBX states that these transmission customers have no viable alternative to the Project to obtain adequate, reliable and efficient transmission service to move their output to markets in Illinois and neighboring states. GBX Ex. 11.0 at 24-25; GBX Ex. 11.4; GBX Ex. 11.13 at 3-4; Infinity Ex. 1 at 4-5, 9; WOW Ex. 1.0 at 32-33, 37. GBX also states that although new wind generating plants in western Kansas could, in theory, sell their RECs to buyers in Illinois and other PJM and MISO states, these plants cannot produce RECs unless they generate and deliver MWhs of electricity to buyers somewhere. GBX Ex. 11.0 at 20; GBX Ex. 11.13 at 17. GBX also maintains that the benefits of allowing new wind generation in western Kansas to access the Illinois electricity markets are not limited to the delivery of electricity from new renewable resources, but rather encompass the delivery of significant new supplies of low-cost, competitively priced electricity (regardless of its source or renewable attributes). GBX IB at 36-37.

Grain Belt Express states that the analyses it presented in this case demonstrating the electricity pricing, competition, reliability and environmental benefits the Project will provide assume the existence and operation of other transmission projects recently approved by this Commission and/or by RTOs, including the MISO Multi-Value Projects ("MVP") approved for Ameren Illinois in Docket 12-0598 and pending for approval for Ameren Illinois and MidAmerican in Dockets 14-0514 and 14-0494, respectively; the Commonwealth Edison ("ComEd") Grand Prairie Gateway Project approved in Docket 13-0657; and the Rock Island Project approved in Docket 12-0560, and the generation these approved projects will accommodate. GBX Ex. 3.0 at 8; GBX Ex. 6.0 at 9; GBX Ex. 11.13 at 4. Grain Belt Express states that the Project does not duplicate any of these other projects, and the economic and reliability benefits

it provides are incremental to the benefits provided by these other recently-approved or proposed projects. GBX Ex. 11.13 at 4. GBX states that these other transmission projects were approved to serve different purposes or address different problems, they serve different resource areas, they are intended to help meet the renewable energy needs of different markets, and/or they will be funded in different ways (*i.e.*, merchant "shipper pays" cost recovery versus RTO cost allocation) than the Grain Belt Express Project. Moreover, although some of the other projects are intended, as is the Grain Belt Express Project, to help meet RPS needs and the demand for renewable energy, the demand for renewable energy in PJM and MISO is so great that all of these projects are needed. Therefore, GBX states, the Project is needed and beneficial notwithstanding the approval of these other projects by RTOs and/or the Commission. GBX Ex. 11.0 at 27-30; GBX Ex. 11.13 at 4; GBX IB at 37-38.

Grain Belt Express responded to issues raised by other parties as to how operation of the Project might arguably adversely impact the public convenience and necessity: (1) that further development of new wind generation facilities in Illinois may be limited; and (2) that one or more nuclear power plants in Illinois could cease operation due to the new wind generation introduced by the Project. (ICC Staff Ex. 3.0 at 11; LACI Ex. 1.0 at 8; LACI Ex. 4.0 at 1-2.) GBX states that the record shows that the likelihood of either event is low and in any event they would not be attributable to the Grain Belt Express Project. GBX maintains that these possibilities do not detract from the substantial benefits the Project will provide and do not warrant a conclusion that the Project will not promote the public convenience and necessity. GBX IB at 38.

With respect to the impact of the Project on the construction of additional wind generation in Illinois, Grain Belt Express states that the demand for low-cost electricity from renewable resources in Illinois and other PJM and MISO states is so large (and continuing to increase) that construction of the Project and the connection of 4,000 MW of new wind generation capacity in western Kansas to the electricity markets in Illinois and other PJM and MISO states will not diminish the need to continue developing new wind generation in Illinois. The total RPS demand for renewable energy and RECs in the 18 PJM and MISO states is projected to be 166,141,000 MWh in 2020 and 210,998,000 MWh in 2025. GBX Ex. 11.3. GBX notes, however, that Illinois is already well-developed with wind generation, and as developers seek to develop new projects in Illinois, they will face increasing difficulty in finding (i) windy sites with (ii) low-cost access to the existing transmission grid. As more wind generation is built in Illinois, subsequent projects will necessarily be built at less windy sites. GBX Ex. 11.13 at 38; ICC Staff Ex. 5.0 at 6. GBX states that, in addition, the costs to interconnect new wind generation projects in Illinois to the transmission system will increase over time. GBX states that developers are quickly picking off the windier sites in Illinois with good access to existing transmission. GBX Ex. 11.13 at 38-39. Finally, GBX states, as developers seek to develop new wind projects in Illinois, they potentially face the additional issue of needing to use sites that are less remote and located closer to more heavily populated areas, which may involve greater siting constraints. GBX IB at 38-39.

With respect to the possible closing of one or more Illinois nuclear plants, Grain Belt Express points out that this has already been a topic of public discussion for some time, dating to well before Grain Belt Express sought authority to build the Project in Illinois. *See, e.g.*, ICC Staff Ex. 5.0 at 8 note 10 (citing a March 1, 2014 news article, "Exelon warns State it may close 3 nukes"); Illinois House Resolution No. 1146

(adopted May 29, 2014). Yet, it is at least four to five years before the Grain Belt Express Project is expected to come on-line and would begin to impact regional wholesale electricity market prices. GBX states that it is unlikely that the proposal to construct the Project, with a projected in-service date four to five years in the future, would impact nuclear plant retirement decisions being made today. GBX Ex. 11.13 at 36; GBX IB at 39.

Grain Belt Express nevertheless examined the impact of the Project going into service in 2020, and the resulting reductions in wholesale electricity prices, on the revenues that the Exelon nuclear plants would receive in that year with the Project and its connected wind generation in service, and on the margins between operating revenues and operating costs for the nuclear plants. GBX Ex. 11.13 at 30-35; GBX Ex. 3.6. This analysis showed that the wholesale electricity price from the Project would reduce the revenues received by nuclear plants by 1 to 2 percent. GBX Ex. 11.13 at 31. Moreover, GBX states that using either Exelon's publicly reported fleet-wide operating costs, or the average U.S. nuclear plant operating costs published by the Energy Information Administration (which are 31% higher than Exelon's publicly-reported costs), the analysis shows the nuclear plants were still able to make a profit. *Id.* at 32-35. GBX further states that its analyses showed that the differences among the four future economic and energy market scenarios studied had a much greater impact on the operating revenues received by the nuclear plants than did the presence or absence of the Project and its connected wind generation; compared to factors such as load growth, prices of generation fuels, and presence or absence of emissions controls and carbon prices, the Project should have a limited, if any, impact on any plant retirement decisions. *Id.* at 32, 34. Finally, the Exelon nuclear plants will likely receive additional revenue support in the future from recent changes made by PJM to its capacity markets that will result in higher capacity payments to nuclear plants; as well as from implementation of the U.S. EPA's §111(d) Clean Power Plan. *Id.* at 35-36. Grain Belt Express maintains that the information it presented shows that the risk of nuclear plant retirements being caused by the Grain Belt Express Project is small. GBX IB at 39-40.

Grain Belt Express' Response to CCPO

Grain Belt Express responded to CCPO's argument that Grain Belt Express has not shown that the proposed Project will promote the public convenience and necessity. CCPO IB at 7. GBX states that CCPO discusses only the testimony of witnesses Matt Langley of Infinity and Michael Goggin of WOW (*id.* at 7-9), and does not discuss any of Grain Belt Express' evidence. GBX states that the evidence it presented demonstrates that the Project will promote the public convenience and necessity. GBX RB at 20. Further, GBX states that Mr. Langley's testimony (Infinity Ex. 1) clearly shows that (1) consistent with the testimony of Grain Belt Express witnesses Skelly and Berry, developers will not construct new wind farms in the wind-rich western Kansas area unless adequate transmission infrastructure is developed to deliver the output of these wind farms to load and population centers, and (2) there are wind farm developers actively engaged in developing new projects in western Kansas, and actively interested in taking transmission service from Grain Belt Express to deliver the output of those plants to PJM and MISO. GBX states that Mr. Langley's testimony along with Mr. Goggin's testimony (WOW Ex. 1.0) also show that there is a need for the Project and that it will provide or enable numerous benefits for the public. Grain Belt Express cited to Mr. Langley's testimony, Infinity Ex. 1, at 3-7, and to Mr. Goggin's testimony, WOW

Ex. 1.0, ay 3-4, 5-7, 14, 15-17, 29-30, 32-33, and 36-40 as supporting these points. GBX RB at 20-22.

Grain Belt Express responded to CCPO's discussion of the testimony of intervenor witness Michael Severson. The essence of the testimony is that the Project is not needed to enable Illinois' RPS requirements to be met because Illinois utilities and alternative retail electric suppliers ("ARES") can simply buy RECs from wind generators in Illinois, adjoining states, or even Kansas. CCPO IB at 8-9. GBX states that Mr. Severson's analysis ignores several important facts. First, although he asserts that Illinois' RPS requirements can be met by buying RECs, he offers no explanation of where those RECs – which require the actual generation of an equivalent amount of energy – will come from. GBX states that in Illinois alone, the current RPS percentage is 10%, but it increases to 25% in 2025, which means that, even assuming relatively flat electrical load in Illinois over the next ten years, the demand for RECs to meet RPS requirements (and thus for electricity generated from renewable energy resources) will be 2.5 times larger in 2025 than it is today. Looking at all of the PJM and MISO states that have an RPS, the evidence shows that the aggregate RPS requirements of these states in 2020 and 2025 far exceeds the existing, available installed renewable generation whose energy and/or RECs are eligible to meet these requirements. GBX Ex. 11.13 at 18-19; GBX Exs. 11.3, 11.4. Second, GBX states that the evidence overwhelmingly shows that the new wind generation in Kansas – from which Mr. Severson assumed that Illinois load serving entities could simply buy RECs – will not be built unless the Grain Belt Express Project (or some other transmission project, which has not been identified) is built to allow the output of these plants to be delivered to markets in PJM and/or MISO. Third, Mr. Severson narrowly focused only on RPS requirements, and ignored the need to supply the significant and growing demand for energy from renewable resources over and above RPS requirements. GBX IB at 57-58. Fourth, Mr. Severson ignored the evidence that power generation by new wind plants in western Kansas and delivered into the PJM and MISO grids, including Illinois, by the Project, is a low-cost source of electricity for consumers that is competitive with other sources regardless of the presence or lack of renewable characteristics. GBX IB at 59-60; GBX RB at 22-24.

Grain Belt Express also points out, in response to CCPO and the Severson testimony, that under the Illinois RPS, ARES may only use RECs that are registered in the PJM or MISO REC registration systems (220 ILCS 5/16-115D(a)(4)), which means that the related renewable energy must be generated in or delivered into PJM or MISO. This is also the case for the RPS of a number of other states, *i.e.*, they require that the generator be located within PJM or MISO or that the energy must be delivered into PJM or MISO (or into the particular state). GBX IB at 55-57; WOW Ex. 1.0 at 5. GBX states that this is important for Illinois consumers, even if the Illinois RPS requirements were to be met solely by purchasing RECs, because the REC market is a regional market. GBX Ex. 4.0 at 8, 19-20; GBX Ex. 1.0 at 18. Thus, if the new Kansas wind generators are not built, or are (hypothetically) built but cannot deliver their output into PJM and MISO, the regional supply of RECs will be lower, REC prices will be higher, and Illinois consumers will pay more for RPS compliance. GBX RB at 23.

Grain Belt Express' Response to MEZ

Grain Belt Express responded to MEZ's assertion that Grain Belt Express has "present[ed] no evidence in this docket that the Line is needed to provide adequate,

reliable or efficient service." MEZ IB at 7. GBX states that, to the contrary, the record contains substantial evidence demonstrating that the Project is necessary to provide adequate, reliable and efficient service in accordance with §8-406.1(f)(1). GBX RB at 24. MEZ also contended that it has not been shown that the Project will promote the public convenience and necessity (MEZ IB at 7-8), but GBX responded that the evidence very strongly shows that the Project will promote the public convenience and necessity. GBX stated that the benefits of the Project, including lower wholesale and retail electricity prices, lower REC prices, greater competition in the generation and REC markets, reduced emissions, reduced volatility in the price of electricity, and economic development and employment benefits for Illinois, will all benefit the public in Illinois, not a few isolated individuals. GBX RB at 24.

Grain Belt Express responded to MEZ's concern that Grain Belt Express has not submitted the Project to any RTO planning processes for approval, and to MEZ's suggestion that the Project could have been submitted "separately" to MISO and PJM. MEZ IB at 6-7. GBX states that the RTOs simply have no process for evaluating the need for a merchant transmission project such as the Project. GBX stated that MEZ (and other intervenors) assert, at an abstract level, that the Project should be submitted to the PJM and MISO regional planning processes for a determination of need; but none of them has identified the specific process or procedure at either PJM or MISO through which the Project would be submitted for, and obtain, a determination of need. GBX states that they cannot do so because there are no such processes. GBX states that this Commission, along with the state commissions of the other states in which the Project is to be located, will determine whether the Project should be built. GBX Ex. 11.0 at 67; GBX RB at 24-25.

Finally, Grain Belt Express noted that MEZ makes the same flawed argument as CCPO (described immediately above), based on Mr. Severson's testimony that the Grain Belt Express Project is not needed because the RPS requirements into the future can be met simply by purchasing RECs. GBX RB at 25.

2.-x. [Other Parties' Positions]

y. Commission Analysis and Conclusion

Based on its review of the Application and the evidentiary record and consideration of the arguments of the parties, the Commission finds that the proposed Project will promote the public convenience and necessity. The Commission bases its finding, in part, on its findings, discussed below in this Order, that the Project is necessary to provide adequate, reliable and efficient service to Grain Belt Express' customers and is the least-cost means of satisfying the service needs of those customers, and that the Project will promote the development of an effectively competitive electricity market that operates efficiently, is equitable to all customers, and is the least-cost means of satisfying those objectives. The Commission also bases its findings on the following benefits of the Project that are shown by the record: The Project will enable a substantial amount of new, low-cost, high capacity factor wind generating plants to access the Illinois electricity markets and to compete to serve customer load; the operation of the Project and the low-cost wind generation it will enable to access the Illinois electricity markets will reduce wholesale and retail electricity prices, and will also increase the supply of RECs in the regional markets and put downward pressure on the prices of REC; the Project and the low-cost wind

generation it will deliver will help to meet the RPS requirements of Illinois and other PJM and MISO states, the overall demand for energy from renewable resources, over and above RPS requirements, and the overall demand for low-cost electricity in general (*i.e.*, whether from renewable resources or not); the Project and the new wind generation it will enable will reduce emissions; the Project will increase the diversity of wind generation serving Illinois, thereby reducing the variability of wind energy as a supply resource and reducing wind integration costs for the overall electric supply system; the Project and the new connected wind generation will help to reduce the volatility of electricity prices that results from the volatility in the prices of fuels used for electric generation, particularly natural gas; and the construction of the Project will be a significant construction project in the State of Illinois that will promote significant economic and employment activity. With regard to the last point mentioned, the Commission notes the arguments of some parties that the construction and operation of the Project may lead to nuclear power plant closures and reduced future development of new wind generation plants in Illinois; however, based on the record, the Commission finds any connection between the construction of the Project and those possible occurrences to be too attenuated and speculative to overcome the significant benefits that the Project will provide for electricity consumers and the public in general in Illinois.

B. Section 8-406.1(f)(1)

1. Necessary to Provide Adequate, Reliable, Efficient Service

a. Grain Belt Express' Position

Grain Belt Express states that the Illinois courts have long held that "necessity" or "necessary" as used in the Act (in the context of public convenience and necessity) does not mean "indispensably requisite," but rather "needful and useful to the public;" and that what constitutes public convenience and necessity is within the Commission's discretion to determine in each case, thereby permitting consideration of a broad range of factors as applicable to the particular case. GBX notes that the Commission has recently reiterated and relied upon these principles in a §8-406.1 electric transmission line CPCN case for ComEd, Docket 13-0657. Further, GBX states, arguments that the Project is not necessary to provide adequate, reliable and efficient service because it is not needed to cure a specific reliability deficiency in the Illinois electric grid (*e.g.*, the testimony of Staff witness Mr. Rashid, ICC Staff Ex. 1.0 at 8-9) are far too narrowly focused, for at least three reasons. First, such arguments are premised on an unduly limited concept of "necessary," rather than the broader concept of "necessary" and "necessity" embodied in court decisions, which gives the Commission broad discretion to determine what is "necessary" based on the facts and circumstances of each case. Second, such arguments are unduly and narrowly focused on just the electric power system within the geographic boundaries of the State of Illinois. They ignore the inter-regional nature of the North American bulk electric system. GBX states that it is the lack of adequate, reliable and efficient *inter-regional* transmission facilities that the Grain Belt Express Project is intended to address. Third, such arguments ignore the "customers" to whom the Project will provide adequate, reliable and efficient service. Grain Belt Express states that the customers of the Project will be wind generators in western Kansas who need adequate, reliable and efficient transmission service to transport their output to electricity markets in Illinois and other PJM and MISO states, and wholesale and retail buyers of electricity in those destination markets who seek to purchase the low-cost electricity from renewable resources that can be generated in the

wind-rich western Kansas region. GBX IB at 41-42.

It is Grain Belt Express' position that the record demonstrates that construction of the Project is necessary to provide adequate, reliable and efficient transmission service to its customers. GBX states that the customers of the Project will be wind generators in western Kansas and entities seeking to purchase the electricity generated by the wind generators that the Project delivers into the MISO and PJM networks. GBX maintains that these customers have no other viable alternative to the Project to obtain "adequate, reliable and efficient" transmission service to move the low-cost wind power, that the new wind generators will produce from western Kansas, to Illinois and neighboring states in the MISO and PJM footprints. GBX also contends that the Project will be "needful and useful to the public" in those PJM and MISO states, like Illinois, which are experiencing an increasing demand for electricity from renewable resources. GBX IB at 42.

Grain Belt Express states that the Project is needed to address a lack of adequate, reliable and efficient transmission service to move electricity from the excellent wind resource area of western Kansas to Illinois and other PJM and MISO states. GBX states that, currently, there is not adequate transmission infrastructure to move large quantities of low cost wind power from western Kansas to Illinois and other PJM and MISO states. GBX Ex. 11.0 at 24; GBX Ex. 1.0 at 18-23. GBX Exhibit 11.4 is a map showing the high voltage transmission grid in the United States. The exhibit contains an overlay of the map of the United States high voltage transmission grid with the map of average wind speeds, which shows that the transmission capacity needed to bring electricity produced by wind generation facilities in the areas of the United States with the best wind resources, including western Kansas, is limited or non-existent. GBX Ex. 11.0 at 24-25; GBX Ex. 11.4. GBX states that no transmission lines above 345 kV, and no DC lines of any voltage, currently connect western Kansas to Illinois, MISO and PJM. GBX Ex. 11.0 at 25. GBX states that while it might be theoretically possible to move some power from western Kansas to MISO and PJM using existing 345 kV AC lines, this would not be feasible or efficient, because it would: (1) entail substantially higher electric losses compared to an HVDC solution such as the Project; (2) expose the shipper to congestion costs on the AC system that result from transmission constraints; and (3) require the shipper to pay wheeling and congestion charges to SPP, MISO and PJM. GBX states that the additional costs and complexities make it unrealistic and uneconomic from a practical standpoint for wind developers to move power from new wind facilities in western Kansas to MISO and PJM. Additionally, the existing Southwest Power Pool ("SPP") RTO transmission grid in the area is insufficient to support the addition of 4,000 MW of new wind farms delivering energy into the SPP grid; and the major load centers in the SPP footprint are themselves hundreds of miles from western Kansas. GBX Ex. 11.0 at 25; GBX Ex. 11.13 at 46, 49-50; WOW Ex. 1.0 at 33-35; Infinity Ex. 1 at 4, 9-20; GBX IB at 42-43.

Grain Belt Express states that developers of and investors in wind generation facilities in the wind-rich western Kansas area will not commit capital and resources to construct new wind generation facilities unless and until they are confident that there will be sufficient transmission in place to move the output of their generators to load and population centers. Grain Belt Express witness Michael Skelly testified: "As a former developer of wind projects, I can say with confidence that developers of wind generation projects will not invest capital in the construction of additional wind generation facilities,

in areas such as the Resource Area that have the nation's best wind resources, without reasonable assurances of adequate transmission capacity and infrastructure to deliver the output to load and population centers." (GBX Ex. 1.0 at 23.) GBX IB at 43-44. GBX states that from the perspective of developers of wind generation projects in western Kansas, and prospective wholesale and retail buyers of that electricity in market areas such as Illinois the Project is absolutely necessary for them to have adequate, reliable and efficient transmission service, and in fact, for all practical purposes, to have *any* service. GBX IB at 44.

Grain Belt Express states that there is strong customer interest in subscribing for the transmission service the Project will provide. In January, 2014, Grain Belt Express completed a Request for Information ("RFI") process for wind generators that could deliver energy to the Project's converter station in western Kansas. GBX Ex. 11.0 at 5-6; GBX Ex. 1.0 at 29. GBX states that the response to the RFI included 14 wind developers developing 26 wind farms, totaling more than 13,500 MW, in the region surrounding the planned location of the Project's western converter station. GBX Ex. 1.0 at 29; GBX Ex. 11.0 at 5-6. This is approximately three times the amount of generation needed to fully use the Project's capacity. GBX states that wind generation companies have over 700,200 acres of land under lease or option in western Kansas on which they could install wind turbines to supply power to the Project. GBX Ex. 11.0 at 6; GBX IB at 44. Subsequently, and shortly before filing its Application in this case, in February 2015, Grain Belt Express launched an open solicitation process for subscribers wishing to contract for transmission capacity and service on the Project. GBX reports that 14 wind generators submitted transmission service requests for over 17,301 MW of transmission service. GBX states that there was a high level of demand for transmission service to the delivery points in both MISO and PJM: 10 shippers made 3,324 MW of requests for capacity to the Project's delivery point in Missouri, or more than six times the available capacity; for service to the Project's Illinois converter station, 14 respondents requesting service totaling 17,301 MW. GBX Ex. 11.0 at 8; GBX IB at 44-45. GBX states that the results of the RFI and the open solicitation demonstrate that there is a substantial demand by prospective customers, in particular developers of wind generation projects in western Kansas, for the transmission service that the Project will provide. GBX IB at 45.

Grain Belt Express also states that there is a strong and increasing demand in Illinois, as well as in other PJM and MISO states, for low-cost energy from high capacity factor wind generation, which the Project will deliver from western Kansas into the MISO and PJM grids. GBX states that this demand comes from the need to meet the increasing RPS requirements of Illinois and other PJM and MISO states; the increasing demand for clean electricity from renewable sources, over and above the demand that is specifically driven by statutory RPS requirements; the need to replace generation from existing plants that have recently been, or will be in the reasonably near future, retired, due to age and/or the costs of complying with emissions limitations and other environmental requirements; and the demand for low-cost electricity generally, regardless of its source. GBX states that electricity from new wind generation is now cost-competitive with other new generation sources, and electricity from new wind plants located in the excellent wind resource area of western Kansas is particularly competitive. GBX states that, additionally, to the extent there is a demand for RECs separate from the demand for the electricity itself produced from renewable resources, the wind generators that the Project will connect to electricity markets in PJM and MISO

can be a source of low-cost RECs, and their output will put downward pressure on the prices of RECs in the PJM and MISO regions. GBX IB at 45-46.

Grain Belt Express states that because of the strong and increasing demand for electricity from renewable resources, and the competitiveness of new wind generation (particularly new wind generation located in the best wind resource areas, such as western Kansas), development and construction of new wind plants in western Kansas to access electricity markets in Illinois and other PJM and MISO states via the Project is an attractive economic and commercial prospect for wind generation developers. GBX states, however, that the economic and commercial attractiveness of developing new wind generation in western Kansas depends on there being adequate, reliable and efficient transmission service, which does not exist today, to transport the output of western Kansas wind plants to electricity markets in Illinois and other PJM and MISO states. Grain Belt Express contends that these considerations further support the conclusions that there is a strong demand for the service the Project will provide and that the Project is necessary to provide adequate, reliable and efficient transmission service to those customers. GBX IB at 46.

Grain Belt Express states that it will employ the most efficient transmission technology for transporting large amounts of power, particularly power from variable generation resources, over long distances. GBX states that it is well-established that HVDC is a more efficient technology than AC solutions for the long-haul transmission of large amounts of electric power. GBX Ex. 2.0 at 8. GBX states that, among other advantages, HVDC lines: (1) transfer more power with lower line losses over long distances than do AC lines; (2) give the operators direct control of energy flows; (3) will not become overloaded by unrelated outages, thereby reducing the likelihood of outages propagating from one region to another; and (4) utilize narrower rights-of-way and fewer conductors, thereby making more efficient use of transmission corridors and minimizing visual and land use impacts. *Id.* at 9. GBX states that a comparison between (i) a 780-mile, 4,000 MW capacity, ±600 kV HVDC transmission facility, such as the Project, and (ii) a variety of AC alternatives of similar distance and transmission capacity, shows that the HVDC alternative has much lower construction costs (by hundreds of million, and in some comparisons, billions, of dollars) and lower annual cost of losses (again, by hundreds of millions of dollars) than any of the AC alternatives. GBX Ex. 2.0 at 12-14; GBX Ex. 2.1; GBX IB at 46-47.

Grain Belt Express states that, in addition to meeting the need for adequate, reliable, efficient transmission service to transport electricity generated by wind generation facilities in western Kansas to electricity markets in Illinois and other PJM and MISO states, the Project will provide specific reliability benefits for the electric system in Illinois. GBX IB at 47. Grain Belt Express witness Robert Zavadil conducted a Loss of Load Expectation ("LOLE") analysis to measure the potential reliability impact of the Project on the State of Illinois. GBX Exs. 6.0, 6.3. LOLE analysis, which is a standard industry technique for assessing the resource adequacy of the bulk electric system, calculates the probability that a set of generating units or other supply options is insufficient to meet an expected level of electric demand. A higher LOLE indicates a higher probability of loss of load, whereas a lower LOLE value indicates a lower probability of loss of load and improved reliability of the bulk electric system. GBX Ex. 6.0 at 3, 5. GBX states that Mr. Zavadil also measured the Effective Load Carrying Capability ("ELCC") of the Project; this measures the increase in load that can be

served by the addition of a new supply resource to the portfolio and allows for the ready comparison of the reliability contribution of wind generation compared to that of other generation technologies. *Id.*; GBX IB at 47.

Grain Belt Express states that the purpose of the LOLE study was to evaluate the contribution of the Project to Illinois supply resources; therefore, Mr. Zavadil limited the scope of the analysis to the State of Illinois. GBX Ex. 6.0 at 6. He first calculated the expected LOLE considering all Illinois electric demand and supply resources in the State, then recalculated the LOLE considering the addition of the Project's hourly wind injection. GBX states that the resulting LOLE reduction is the measure of the reliability benefit of the Project for the State of Illinois. *Id.* Finally, he calculated the increase in load, measured in MW, that the Project can support while maintaining the original level of reliability. This increase in load is the ELCC of the wind energy injection of the Grain Belt Express Project. *Id;* GBX IB at 48. Mr. Zavadil then developed a base or benchmark case consisting of forecast hourly profiles for electric load within Illinois and the resources serving Illinois load, with adjustment to Illinois generating capacity to reach a benchmark reliability level of 1 day in 10 years, which is the industry standard for reliability. GBX Ex. 6.0 at 8. The base case did not include the Project or its wind energy injection into Illinois; a second set of cases included hourly wind injection from the Project at its interconnection point with PJM. *Id.* The initial case in this second set of cases utilized the hourly wind profile provided by GBX David Berry; to account for inter-annual meteorological variations that could affect the correlation between periods of high electric demand (which are more likely to stress the electric power system in terms of supply resource availability and adequacy), eight additional cases were generated by shifting this profile by one or more weeks either forward or backward in time, for a total of nine cases. *Id.* at 8, 11. GBX states that by comparing the base case LOLE (i.e., without the Project) to the LOLE with the Project, Mr. Zavadil was able to measure the LOLE improvement provided by the Project. Similarly, by adding load to the "with Project" case until the LOLE returned to the base case value, he measured the ELCC contribution of the Project's injection of electricity from wind generation to the PJM grid. *Id*.; GBX IB at 48-49.

Grain Belt Express states that Mr. Zavadil concluded that the average LOLE reduction in the nine cases or scenarios he studied was 0.079 days per year, representing a substantial reduction in loss of load expectation in the State of Illinois. GBX Ex. 6.0 at 11; GBX Ex. 6.3. GBX states that for context, this improvement may be compared to the industry accepted measure of 0.1 days per year as representing adequate reliability. *Id.* Further, for the nine scenarios, the annual ELCC averaged 986 MW, with a low annual value of 590 MW and a high value of 1550 MW. GBX Ex. 6.0 at 11; GBX Ex. 6.3. GBX states that, in other words, the Project's injection of wind generation into the PJM grid has approximately the same reliability benefit for Illinois as a large new conventional thermal power plant. GBX Ex. 6.0 at 11-12. Thus, GBX states, Mr. Zavadil found that wind energy injection from the Project into the PJM grid will positively impact resource adequacy and electric reliability in the state of Illinois, based on reduced LOLE metrics from the addition of the Project and the calculated ELCC. *Id.*; GBX IB at 49.

Grain Belt Express concludes that the evidence shows that the Project is necessary to provide adequate, reliable and efficient transmission service to its customers. GBX further contends (as discussed in the summary of its position in

§IV.B.3.a below, that the Project is the least cost means of meeting the service needs of Grain Belt Express's customers. GBX IB at 49.

Grain Belt Express' Response to CCPO

Grain Belt Express responded to CCPO's assertion that "GBX does not have customers." Grain Belt Express states that it does not have customers under contract for transmission service, but it does have target customers, consisting principally of (1) owners of wind generators existing or to be built in western Kansas, and (2) wholesale and retail purchasers of electricity in Illinois and other PJM and MISO states who seek to purchase electricity generated by the Kansas wind farms and have it delivered to them by the Project. GBX Ex. 1.0 at 14; GBX Ex. 11.0 at 55-57; GBX RB at 25-26. Grain Belt Express states that it has identified significant customer interest in contracting for transmission service on the Project; in its open solicitation conducted in early 2015, the requests for transmission service received far exceeded the capacity of the line. GBX states that it is beginning commercial negotiations for transmission service agreements with these customers. GBX Ex. 1.0 at 29; GBX Ex. 11.0 at 7-8. GBX states that these are the customers who require that the Project be built and placed into operation in order to have adequate, reliable and efficient service; in fact, without the Project, these customers have no service. GBX reiterates that, contrary to CCPO's assertion (CCPO IB at 10), the record shows that adequate, reliable and efficient transmission service to move wind power from western Kansas to PJM is currently not available. GBX RB at 26.

Further, Grain Belt Express states that neither it nor its customers can be expected to enter into definitive transmission service contracts until necessary regulatory approvals for the Project are received, including approval of the route. GBX states that these approvals will provide assurances that it is authorized to build the transmission line, and the regulatory approvals in conjunction with the approved route will enable Grain Belt Express to establish costs and construction schedule with sufficient certainty to establish when service on the line will be available and the pricing for the service. GBX Ex. 11.0 at 81-82, 83-84; GBX RB at 26.

Grain Belt Express' Response to MEZ

Grain Belt Express responded to MEZ's argument that there has been no showing that the Project is needed for the reliability of the PJM grid or to relieve congestion in PJM or MISO. MEZ IB at 9. GBX states that MEZ's argument unduly limits the scope of the "necessary to provide adequate, reliable, and efficient service" criterion of §8-406.1(f)(1). GBX contends that the record establishes that the Project is necessary to provide adequate, reliable and efficient service to Grain Belt Express' customers has been demonstrated in the record, as summarized in §IV.B.1.a-c of Grain Belt Express' Initial Brief. GBX RB at 26-27.

Grain Belt Express' Response to Staff

Grain Belt Express responded to Staff's position that the Project is not necessary to provide adequate, reliable and efficient "electric service to Illinois ratepayers," and that it has not been shown that the Project "is needed or necessary to maintain the reliability of the electric system in Illinois." Staff IB at 13. GBX stated that, like MEZ, Staff's analysis unduly limits the scope of the "necessary to provide adequate, reliable,

and efficient service" criterion of §8-406.1(f)(1). GBX contends that nothing in §8-406.1(f)(1) requires that this criterion must only be applied with respect to "electric service to Illinois ratepayers" or to "the reliability of the electric system in Illinois." GBX reiterated that the record shows that adequate, reliable and efficient transmission service to move wind power from western Kansas to PJM is currently not available. GBX RB at 27.

Grain Belt Express' Response to IAA

Grain Belt Express stated that IAA adopts the same analysis and argument as Staff on this criterion. IAA IB at 27. GBX responded that, as stated in response to Staff and MEZ, this analysis and argument unduly limits the scope of the "necessary to provide adequate, reliable, and efficient service" criterion of §8-406.1(f)(1). GBX also responded to IAA's contention that "the effect of the Project on the reliability of the electric system is unknown at this time" (IAA IB at 27); GBX pointed out that its witness Mr. Zavadil demonstrated that the Project will reduce Loss of Load Expectation in Illinois, and will increase the Effective Load Carrying Capability of the electric system in Illinois by the equivalent of the addition of a large new thermal generating plant. GBX Ex. 6.0 at 10-12; GBX Ex. 6.3; GBX RB at 27.

Grain Belt Express also responded to IAA's argument that Grain Belt Express is "choosing to wait to hire the necessary employees until just before the commencement of construction" and is waiting to see if there is a need for the transmission line before seeking financing. IAA RB at 27-28. As to the first point, GBX stated that it is filling positions in its construction management organization for which there is work to be performed in the current, pre-construction phase, and is prudently waiting to fill other positions until there is work to be performed by those positions. GBX Ex. 1.0 at 42-43. GBX states that in the Rock Island CPCN proceeding, the Commission found this to be a reasonable approach (Order in Docket 12-0560 at 131). GBX RB at 28. As to the second point, GBX stated that under the project finance approach, construction financing will be secured after transmission service contracts are signed, which cannot happen until regulatory approvals for the Project are obtained. GBX Ex. 11.0 at 75, 79-80. GBX witness Mr. Berry explained that this sequencing is typical in the capital markets for financing projects using the project finance approach. *Id.* at 81-82; GBX RB at 28.

b.-x. [Other Parties' Positions]

y. Commission Analysis and Conclusion

Based on its review of the Application and the evidentiary record and consideration of the arguments of the parties, and taking into account its finding as to "least cost" in §IV.B.3 of this Order, below, the Commission finds that the proposed Grain Belt Express Project is necessary to provide adequate, reliable and efficient service to Grain Belt Express' customers and is the least-cost means of satisfying the service needs of those customers. The evidence presented by Grain Belt Express witnesses Skelly and Galli, by Mr. Langley, a wind farm developer, and by Mr. Goggin, an industry expert and representative of the wind generation industry, shows that there is a need for a direct, efficient transmission link from western Kansas to the electricity markets in Illinois and other PJM and MISO states if new wind generation plants are to be built to utilize the excellent wind resources of the western Kansas region, which has

some of the nation's highest average wind speeds, which can be used to produce clean, low costs electricity from renewable resources. The record demonstrates that the existing transmission infrastructure between the western Kansas region and Illinois and the PJM and MISO grids is inadequate to move efficiently and economically (or at all) significant amounts of electricity from the former region to the destination areas. The evidence is clear that significant new wind generation will not be built in western Kansas to take advantage of its excellent wind resources unless improved transmission access to load and population centers, such as the Project will provide, is constructed and placed into operation. The record also shows that there is significant customer interest from developers of wind generation, who are active in project development activities in western Kansas, in obtaining transmission service on the Project if it is built. Further, from the perspective of wholesale and retail buyers of electricity in Illinois and other PJM and MISO states, there is a need for improved transmission infrastructure, such as the Project will provide, if these customers are to have access to the low-cost, clean electricity that can be produced by the excellent wind resources of western Kansas. Although the record indicates that it is theoretically possible to transport electricity from western Kansas to Illinois over the existing AC grid, the record also shows that such service is neither "adequate" nor "efficient." The Project will provide direct, efficient transmission service from wind generators in western Kansas to customers in Illinois and in other PJM and MISO states, using HVDC technology, which is most appropriate for moving large amounts of electricity, particularly electricity produced by variable generation resources, over long distances. Finally, the Commission notes that although its analysis has focused on the needs of the potential generator customers of the line in western Kansas and potential wholesale purchaser customers of the line in Illinois and other PJM and MISO states, the clean, low-cost electricity that the Project will deliver into the PJM and MISO grids will ultimately be consumed by thousands of retail electricity consumers. Further, as discussed in the Commission's conclusion that the Project will promote the public convenience and necessity, the clean, low-cost electricity that the Project will deliver will help to meet the need to satisfy RPS requirements, the demand for electricity from renewable resources over and above RPS requirements, and the need for additional low-cost electricity supply generally. The Commission finds that the record establishes a need for the Project and for the electricity it will deliver, and that the Project and the service it will provide will be needful and useful to the public.

The Commission rejects arguments that this §8-406.1(f) criterion can only be satisfied by showing that a proposed transmission line is necessary to cure or prevent a specific reliability deficiency in the electric system within the State of Illinois. Such arguments place undue limitations on the statutory provision, and are inconsistent with the Commission's broad and well-established authority and discretion to determine what is "necessary" based on the facts and circumstances applicable to each case. The statutory provision refers to the "provision of adequate, reliable, and efficient service to the public utility's customers" but does not limit those customers to the State of Illinois.

2. Promote the Development of an Effectively Competitive Electricity Market

a. Grain Belt Express' Position

Grain Belt Express states that the objective of the Project is to connect the outstanding wind resources of western Kansas to Illinois by delivering the output of

western Kansas wind generating plants into the PJM and MISO transmission grids. GBX states that the Project will enable over 4,000 MW of wind farms to be constructed in western Kansas, which otherwise would not be built due to the limitations of the existing transmission grid; it will enable these wind farms to deliver their electricity to the PJM and MISO markets, and will enable buyers in these markets to access low-cost electricity from these new renewable resources. GBX states that the Project will deliver low-cost, clean, renewable energy to the public in Illinois and other states in the MISO and PJM regions, delivering approximately 18,000,000 MWh of electricity per year to PJM and approximately 2,600,000 MWh per year to MISO. GBX Ex. 11.0 at 4-5; GBX Ex. 1.0 at 23; GBX IB at 50.

Grain Belt Express states that the electricity that the Project will deliver into the electricity markets in Illinois and nearby states will be low-cost, not just as compared to renewable energy, but as compared to electricity from all sources. GBX gives a number of reasons for this. Wind generation has no fuel cost and zero marginal cost; most of the costs of producing electricity from wind are incurred up front in the capital costs of developing and constructing the generating facility. GBX states that the competitiveness of wind generation on a total cost per MWh basis is largely a function of (1) the capital cost of the wind plants and (2) their capacity factor, *i.e.*, the number of MWh that can be generated in a year, over which recovery of the capital costs can be spread. GBX Ex. 11.0 at 35-36. GBX states that western Kansas has a strong competitive advantage in this regard due to both (i) high average wind speeds relative to other locations, resulting in high capacity factors, and (ii) lower costs of development and construction. GBX states that because of these advantages, western Kansas wind farms can generate electricity at a lower cost than wind farms located farther east in Missouri, Illinois, Indiana and other areas that will be served by the Project. *Id.* at 37; GBX Ex. 1.0 at 24; GBX IB at 50-51.

Grain Belt Express explains that western Kansas has some of the highest average wind speeds in the country. Average wind speeds in western Kansas are substantially higher than in Missouri, Illinois, Indiana and other states to the east of Kansas that will be served by the Project. GBX states that higher average wind speeds lead to higher capacity factors; due to the outstanding wind resources of western Kansas, wind generation capacity factors in the area routinely exceed 50%. GBX Ex. 11.0 at 5, 35; GBX Ex. 11.6. GBX also states that further, ongoing improvements in wind turbine technologies are yielding higher capacity factors as new wind farms are constructed using the newer technologies. GBX Ex. 1.0 at 18; GBX Ex. 11.13 at 54-55. GBX states that the new wind generation plants that will be built to connect to the Project, which will use the newest and most efficient wind turbine technology, can be expected to have even higher capacity factors. GBX estimates that new wind plants in the vicinity of its converter station will achieve capacity factors of 55%. GBX explains that this figure was calculated by applying wind speed data, obtained from meteorological towers in the area of the converter station, to the power curves provided by the manufacturers of two current generation wind turbines. GBX adds that further improvements in turbine technology, and consequently in capacity factors, can be expected by the time the Project and the connected wind generators go into service in 2019 or 2020. GBX Ex. 11.0 at 11; GBX Ex. 11.13 at 54-55; GBX IB at 51.

Grain Belt Express states that with respect to development and construction costs, wind farms in in the interior region of the U.S., including Kansas, have lower

average installed costs per unit of capacity than the national average. GBX Ex. 11.0 at 36-37. Further, recent data published by the Lawrence Berkeley National Laboratory reports that the capital costs of wind farms in the interior region, including Kansas, averaged $1,755 per kW of capacity, while the capital costs of wind farms in the Great Lakes region, including Illinois, averaged $2,033 per kW of capacity. GBX Ex. 11.13 at 52-53. These figures are based on new wind plants placed into service in 2012 and 2013; data including new wind plants placed into service in 2014, which became available late in this case, indicates an increasing capital cost advantage for new wind plants built in the region of the country that includes Kansas. Tr. 425-426. GBX explains that the lower development and construction costs in Kansas are a product of several factors. For example, compared to Illinois, Kansas has lower labor costs, lesser siting constraints, better soil conditions (which reduces foundation costs), and better access roads (which reduces the cost of new road construction and the cost of access to construction sites). In addition, the turbines used in lower wind-speed environments such as Illinois are often more expensive, per MW, than those in Kansas. This is because bigger turbine blades and taller towers are needed to produce a reasonable amount of energy in lower-wind sites. The use of bigger blades and taller towers in lower-wind sites produces more energy, but requires higher capital costs per unit of capacity. GBX Ex. 11.13 at 52. GBX states that the lower development and construction costs for wind farms in Kansas is consistent with the experience of members of its management team in developing wind farms in many different regions of the country. GBX Ex. 11.0 at 37; GBX IB at 52. In summary, Grain Belt Express states that with higher capacity factors due to the outstanding wind resources and high average wind speeds of western Kansas, and lower development and construction costs, wind generators in western Kansas can produce electricity at a very competitive price. GBX states that the current market pricing for power purchase agreements in western Kansas is 2.0 cents to 2.5 cents per kwh, and indicated pricing for electricity from new wind farm developments in western Kansas is in the area of 2.0 cents per kwh. GBX Ex. 11.0 at 35; GBX IB at 52-53.

With respect to the cost that wind generators in western Kansas will have to incur to transport their output to the PJM and MISO grids via the Project, Grain Belt Express estimates the cost of transmission service on the Project at 2.0 cents per kwh (GBX Ex. 11.0 at 39), meaning the delivered cost of electricity from wind generators in western Kansas to the Project's MISO and PJM delivery points can be 4.0 cents to 4.5 cents per kwh. Grain Belt Express states that the Project, and the construction of new wind farms in western Kansas to deliver their output to PJM and MISO using the Project, is economically feasible because the total delivered cost of energy to PJM and MISO is less than the cost of other alternatives to meet the demand for electricity from renewable resources, and in fact is less than the costs of other alternatives to meet the demand for electricity generally. *Id.* at 26, 37, 39-45. GBX states that, based on prices in the destination markets, the forecasted revenues from selling, in PJM, the electricity produced by western Kansas wind farms and delivered by the Project to the PJM grid, are sufficient to cover the capital and other costs of generating the electricity in western Kansas and delivering it to PJM. GBX states that its analyses show that this conclusion holds over a wide range of scenarios and differing assumptions as to variables such as the capital and operating costs of the wind farms, the capital costs of the Project, the continuation or elimination of the production tax credit for wind energy, the price of natural gas, and rates of return on capital. Therefore, contends GBX, the Project offers prospective wind generation operators in western Kansas, and prospective purchasers

of their electricity in Illinois and other PJM states, a compelling economic and commercially attractive proposition. GBX Ex. 11.0 at 43; Tr. 994, 997; GBX IB at 53.

Grain Belt Express states that there is a strong demand and need for the low-cost electricity from western Kansas wind generators that the Project will deliver to electricity markets in Illinois and other PJM and MISO states, driven by several factors. These factors include the requirements of RPS established by statute or regulation in Illinois and many other states in the PJM and MISO footprints; the increasing demand, over and above that driven specifically by RPS requirements, for electricity from renewable resources; and the demand for low-cost electricity in general, particularly to replace the electricity produced by coal-fueled generating plants that are retiring due to age, increasingly stringent environmental regulations, and the costs of complying with those regulations. GBX Ex. 11.0 at 13; GBX IB at 53-54.

Grain Belt Express states that in Illinois, the statutory RPS requirement for ComEd and Ameren to supply the electricity demands of "eligible retail customers" from renewable resources increases year by year to its maximum of 25% by June 1, 2025. The RPS requirements also apply to ARES with respect to the retail load they serve, although the ARES are currently required to meet 50%, and are allowed to meet up to 100%, of their RPS obligations by making alternative compliance payments ("ACP") to the Illinois Power Agency ("IPA"). The IPA is to use the ACPs to purchase RECs. For the electric utilities, 75% of their RPS requirement must be met by electricity from wind generation, while for ARES, at least 60% of the electricity used to meet their RPS obligations must come from wind generation. GBX Ex. 11.0 at 13-15; 20 ILCS 3855/1-75(c)(3); 220 ILCS 5/16-115D; GBX IB at 54-55.

Grain Belt Express presented calculations of the total RPS requirement (MWh) in Illinois and 17 other states located wholly or partially in the PJM or MISO footprint, in each of the years 2015 through 2025, which could be fulfilled by energy from western Kansas wind farms delivered by the Project. This analysis was prepared using electricity load forecasts for each state published by the Energy Information Administration and the RPS provisions of each state, including provisions establishing preferences, carve-outs and exclusions. The calculation excluded the state RPS requirements that could not be met using wind energy from western Kansas delivered by the Project, due, for example, to in-state sourcing preferences, such as in Michigan's RPS, or to requirements that specified portions of a state's RPS be met from other sources or technologies (*e.g.*, from solar or distributed renewable generation resources). The analysis showed that there is estimated to be 106,830,000 MWh of RPS renewable energy or REC requirements in 2020, and 136,448,000 of RPS renewable energy or REC requirements in 2025, in these 18 states that can be fulfilled by purchases of energy delivered by the Project into MISO or PJM. GBX Ex. 11.13 at 17-18; GBX Ex. 11.14. In contrast, total renewable energy generation in the PJM and MISO states in 2014 was about 85,600,000 MWh. Further, GBX states that wind generation in several western MISO states accounted for 43% of this total, and that wind generation is ineligible to meet RPS requirements in several PJM states that require physical delivery into PJM or an interconnection with PJM. GBX states, however, that renewable energy delivered by the Project is eligible to be used to meet the RPS requirements of these PJM states because the Project will deliver electricity from western Kansas wind farms into the PJM grid. Most states in PJM require renewable energy resources to be connected to the PJM grid for the energy to qualify

for the state's RPS, and most states in PJM allow renewable energy delivered anywhere in the PJM footprint to qualify for compliance with their RPS; further, seven states in the MISO footprint have renewable energy standards that allow for use of renewable energy from wind energy projects that would be connected to the Grain Belt Express Project. GBX Ex. 11.0 at 16-17; 20-21; GBX Ex. 11.13 at 18-19; WOW Ex. 1.0 at 5-7. Additionally, GBX calculated that the total regional RPS demand for renewable energy and RECs, including the demand that could not be met by renewable energy delivered by the Project due to preferences, carve-outs and exclusions, in the 18 PJM and MISO states is projected to be 166,141,000 MWh in 2020 and 210,908,000 MWh in 2025. GBX Ex. 11.3. GBX maintains that this total RPS demand figure is also a relevant number because the total demand for electricity from renewable resources in the region will affect the availability and prices of renewable energy and RECs in Illinois. GBX Ex. 11.13 at 17-18; GBX IB at 55-56.

Grain Belt Express states that with respect to the Illinois RPS, utilities must meet their RPS obligations for the load of eligible retail customers by purchasing energy or RECs from renewable resources located in Illinois or adjoining states, unless sufficient cost-effective renewable resources are not available in those locations, in which event the RPS can be met through purchases from renewable resources in other locations (such as Kansas). Under the statute, renewable resources are not "cost effective" if they cause the RPS price caps to be exceeded or if they exceed benchmark prices established by the IPA Procurement Administrator in conjunction with the IPA, the IPA Procurement Administrator and Commission Staff and approved by the Commission. 20 ILCS 3855/1-75(c)(1) and (3); GBX Ex. 11.0 at 16-17; GBX Ex. 11.13 at 10-11. GBX states, therefore, that even though the wind generators that will connect to the Project are not located in Illinois or an adjacent state, they may in fact be eligible resources for the utilities' RPS obligations, particularly in light of their lower cost than alternatives. GBX states that ARES (who now serve the great majority of load in Illinois subject to RPS requirements) can meet their RPS obligations by purchasing renewable energy or RECs from generation in any state so long as the renewable energy or RECs are certified by the MISO or PJM renewable energy tracking systems. GBX states that because the Project will deliver renewable energy directly into MISO and PJM, this energy will be registered in the MISO and PJM tracking systems, and therefore will be eligible to meet the RPS obligations of Illinois ARES. 220 ILCS 5/16-115D(a)(4); GBX Ex. 11.0 at 16; GBX Ex. 11.13 at 9; GBX IB at 56-57.

Grain Belt Express concludes, in summary, that even taking into account the preferences, carve-outs and exclusions in the individual states' RPS laws, there will be a significant demand, in excess of the current renewable generation supply, for renewable energy and RECs produced by western Kansas wind farms, which the energy delivered by the Project to PJM and MISO will be eligible to meet. *Id.*at 20-24; GBX Ex. 11.13 at 18-19; GBX IB at 57.

Grain Belt Express states that the demand for energy from renewable resources and RECs to meet state RPS requirements in PJM and MISO is only part of the overall demand for low-cost renewable energy, and that additional demand comes from numerous sources. GBX states that, pursuant to Illinois law, a number of municipalities have obtained approval, through referenda, to establish aggregation programs whereby the municipality contracts with an ARES to supply electricity to all residential and small business retail customers in the municipality, other than customers who opt out of the

program or are already served by an ARES. A number of these municipalities have required the ARES to obtain a significant additional portion of their electricity supply, beyond the RPS minimum requirements, from renewable resources, or to offer the retail customers an option to specify that a stated percentage, above the RPS minimum, of the electricity supplied will come from renewable resources. GBS states that these requirements increase the amount of renewable energy or RECs that must be purchased to serve load, beyond the statutory RPS minimum amount. GBX notes that a recently-published report highlighted that more than 90 Illinois municipalities, representing 1,700,000 people, have far surpassed the requirements of the Illinois RPS by electing to purchase 100% renewable energy. GBX states that municipal aggregation programs can result, and have resulted, in purchases of electricity from renewable resources in excess of the RPS minimum requirements. GBX Ex. 11.0 at 15-16; GBX IB at 57.

Grain Belt Express also states that electric cooperatives and municipal electric utility systems, which are not subject to state statutory RPS requirements, have also been purchasing energy from renewable resources to meet a portion of the load they serve. GBX cites recent examples of cooperatives, municipal utilities, or their joint procurement agencies, in the PJM or MISO region, making significant purchases of renewable resources to serve load, including the Illinois Municipal Electric Agency, the Missouri Joint Municipal Electric Commission, Associated Electric Cooperative, the City of Springfield, Missouri, and the City of Columbia, Missouri. GBX Ex. 11.0 at 21-22; GBX IB at 57-58. Additionally, large retail users of electricity have also been procuring a portion of the electric supply for their facilities from renewable resources. GBX states that, for example, the retailer IKEA sources 98 MW, and Microsoft purchases 175 MW, of wind energy from wind farms. GBX Ex. 11.0 at 21-22. Infinity witness Langley testified that an increasing number of companies are purchasing renewable power directly from developers, because these buyers see the value in purchasing energy at a very low fixed price for a long period of time. Infinity Ex. 1 at 8; GBX IB at 58.

Grain Belt Express states that another factor, again over and above RPS requirements, driving the demand for renewable energy, and for new, lower-cost sources of electricity in general, is the ongoing retirements of (or reduced generation from) fossil-fueled plants in the existing U.S. generation fleet, due to age and environmental requirements. GBX Ex. 11.0 at 22-23. GBX states that the U.S. EPA's final Section 111(d) rule on carbon dioxide emissions from power plants, issued on August 3, 2015, calls for Illinois to reduce its total power plant carbon emissions by 30% by 2030 (from the 2012 level). GBX states that the Section 111(d) rule is just one of the many environmental regulations that are making it more expensive to operate and generate electricity from fossil-fueled plants. GBX Ex. 11.0 at 23-24; GBX IB at 58.

Grain Belt Express states that as coal-fueled plants retire, customers will demand clean, cost-effective replacement sources of energy. GBX states that over the past six years, generation from coal-fueled plants in the U.S. has decreased by 21%. According to the Energy Information Administration, utilities report that over the next four years, they intend to retire coal-fueled plants comprising over 26,000 MW of capacity. In 2014, the EIA forecasted, based on detailed economic modeling across a number of future scenarios, that almost 50,000 MW of coal-fueled generating capacity will be retired by 2020. MISO reports that within its footprint, 8,000 MW to 10,000 MW of coal-fueled generating capacity is likely to be retired by 2016. GBX Ex. 11.0 at 22-23. Further,

GBX states, over the next 20 years, the total number of retirements of coal-fueled generating capacity is likely to be much higher due to limitations imposed by, and costs of compliance with, environmental regulations, and the favorable economics of other generation sources. *Id.* at 23. GBX states that to replace this retiring capacity, the construction of any significant amount of new coal-fueled generating capacity is extremely unlikely, due to high capital costs and the impacts of environmental regulations. GBX Ex. 11.0 at 23. GBX states that the difficulty in constructing new coal plants will require load-serving entities to turn to other generation sources, including wind generation, to meet load growth, replace retired capacity, and achieve emissions levels required by laws and regulation. As more coal plants retire (or reduce their generation), they will need to be replaced by other, cleaner sources of generation, including low-cost wind energy such as the Project will deliver to PJM and MISO, in order to keep electric rates from increasing and to maintain a secure electric supply. *Id.* at 22-24. GBX states that electricity produced by new western Kansas wind generators and delivered to the PJM grid by the Project is cost-competitive with electricity from new combined-cycle electric generating plants. GBX Ex. 11.13 at 5; GBX IB at 58-59.

Grain Belt Express states that a final set of drivers of the increasing demand for electricity from wind generation, which the Project can deliver to Illinois electricity markets, is that energy from wind generation is not subject to fuel price volatility (and therefore can provide a natural edge against volatile electricity prices), does not have fuel supply concerns due to railroad or natural gas pipeline delivery constraints, and improves air quality. GBX Ex. 11.13 at 5-6; GBX Ex. 4.0 at 7; WOW Ex. 1.0 at 29-30; GBX IB at 59.

Grain Belt Express responded to the argument of intervenor witness Michael Severson that it is not necessary to build the Project to transport the output of new wind generation plants in western Kansas to MISO and PJM delivery points, because RPS requirements can be satisfied by the purchase of RECs without purchasing the physical electricity. MEZ Ex. 1.0 at 25-26. GBX pointed out that Mr. Severson ignored the physical reality that in order to create RECs, a renewable generating resource must actually produce and deliver, to some physical buyer, MWhs of electricity. GBX Ex. 11.13 at 16, 17. Further, GBX states, the great potential for low-cost, high capacity factor renewable generation in western Kansas currently is not getting developed, because there is not sufficient load in the area to purchase the electricity the new plants would generate, and the transmission infrastructure is not adequate to transport the output of the new plants to more distant load and population centers. The major load centers in the SPP RTO (whose footprint encompasses western Kansas) to which new wind generators in western Kansas could sell their output are hundreds of miles away, and reaching them would require a substantial and expensive program of new transmission construction. GBX Ex. 11.13 at 49-50; WOW Ex. 1.0 at 32-36. GBX states that currently there is not sufficient interconnection capacity in the SPP grid, and adding the necessary interconnection capacity to accommodate a significant amount of new wind generation in western Kansas would require significant capital investment. *Id*. at 49; GBX IB at 59-60. Grain Belt Express also states that Mr. Severson's assertion manifests an unduly narrow view of the demand for clean, low-cost electricity. GBX states that RPS compliance in some states may be achieved through purchases of RECs only, but there is an increasing demand for electricity from renewable resources over and above the demand to meet statutory RPS requirements, as well as a demand for low cost electricity generally, regardless of whether it comes from renewable

resources. GBX states that the electricity the Project will deliver into the PJM and MISO grids will lower market electricity prices and will be cost-competitive with electricity from other resource options. GBX IB at 60.

Grain Belt Express summarized analyses conducted by its witness Robert Cleveland to measure the impacts of the operation of the Project, and the wind generators that will use it to deliver their output to PJM and MISO, on electricity prices in Illinois. Using the PROMOD production cost analysis model, a standard electric system modeling program, Mr. Cleveland estimated (i) wholesale electricity prices (also known as locational marginal prices ("LMPs")) in Illinois,[5] (ii) demand cost to serve load in Illinois, and (iii) variable production costs to serve load in the eastern U.S., in the years 2020 and 2024, both with and without the Project and its connected wind generation in operation, under four different future economic and energy market scenarios. The four future scenarios he used for these analyses were: (1) Business as Usual – Energy demand grows under moderate economic growth with no major changes to existing environmental policy, generating technologies, fuel commodity prices or other key energy market assumptions; expansion of renewable generation is driven by current state mandates with moderate retirement of coal generation driven by market economics and existing environmental rules; a small carbon penalty is modeled to reflect non-stringent implementation of federal carbon policy. (2) Slow Growth – Depressed economic conditions characterized by slow demand growth, continued low fuel commodity prices, and minimal generation expansion; addition of new renewable generation is driven by current state mandates with moderate retirements of coal generation driven by expected environmental rules. (3) Robust Economy –Strong recovery in economic activity characterized by accelerated growth in electric demand, higher fuel prices, and increased activity in new generation and transmission projects; expansion of renewable generation is based on current state mandates with moderate retirement of coal generation driven by expected environmental rules. (4) Green Economy – Stringent implementation of the Clean Power Plan and expanded RPS; moderate demand growth; increases in fuel prices and emissions allowance prices; expansion of renewable generation is significantly higher than current state mandates, with accelerated coal retirements and a high carbon penalty. GBX Ex. 3.0 at 6-7; GBX Ex. 3.2; GBX IB at 61-62.

Grain Belt Express explained that, geographically, the analyses encompassed the RTO energy markets and transmission grids in the eastern U.S. as well as most other utility systems in the eastern U.S. not currently participating in RTOs. By comparing a scenario without the Project to a scenario with the Project and keeping all

[5] Grain Belt express states that LMPs represent the incremental cost of energy at a specific electrical bus or collection of busses on the transmission grid at a given point in time. In Illinois, LMPs are calculated by the system operators (PJM and MISO) every five minutes and are used to determine the cost to buy and sell energy on the open market. LMPs include (i) the cost of the next increment of energy needed to meet system-wide demand, (ii) the cost of transmission congestion impacts on a specific bus location, and (iii) the cost of electrical losses associated with a specific bus location. Annual demand cost is the hourly electrical demand at each bus multiplied by the hourly LMP at that bus summed over all buses for all hours, and represents the total cost to purchase energy to supply total annual demand in Illinois under RTO settlement rules. Variable production cost is the total variable cost of generation to meet annual electricity demand including fuel, emissions, variable operation and maintenance, and unit start-up costs. GBX Ex. 3.0 at 5, 10.

other model assumptions the same, Mr. Cleveland was able to determine the Project's impact on LMPs, demand costs, variable production costs and emissions levels for each of the four future economic and energy market scenarios. GBX Ex. 3.0 at 3-5, 10; GBX IB at 62. The results of the analyses show that the Project reduces total demand costs in both the PJM Illinois region and MISO Illinois region in both study years under each of the four scenarios; lowers LMPs in both the PJM Illinois region and the MISO Illinois region in both study years under each of the four scenarios; and reduces total variable production costs in the eastern U.S. in both study years under each of the four scenarios. GBX Ex. 3.0 at 12; GBX Ex. 3.3. Specifically: (1) The Project reduces demand costs in Illinois – *i.e.,* the total cost to purchase energy to supply total annual electric demand in Illinois – by $108 million (Slow Growth scenario) to $231 million (Green Economy scenario) in 2020; The reduction is $139 million under the Business as Usual scenario. (2) The Project reduces demand costs in Illinois by $95 million (Slow Economy scenario) to $360 million (Green Economy scenario) in 2024; the reduction is $161 million under the Business as Usual scenario. The total demand cost reductions resulting from operation of the Project are much larger when measured across all of PJM and MISO; for 2020, operation of the Project reduces total demand costs to serve load in PJM and MISO by $439 million to $1,142 million; while for 2024, operation of the Project reduces total demand costs to serve load in PJM and MISO by $437 million to $1,260 million. (3) The Project reduces the average LMPs in both the PJM Illinois region and the MISO Illinois region in both 2020 and 2024 under all four scenarios. (4) The Project reduces variable production costs in the eastern U.S. by $855 million (Slow Growth scenario) to $1,369 million (Green Economy scenario) in 2020; the reduction is $986 million under the Business as Usual scenario. (5) The Project reduces variable production costs in the eastern U.S. by $798 million (Slow Growth scenario) to $1,660 million (Green Economy scenario) in 2024; the reduction is $1,170 million under the Business as Usual scenario. GBX Ex. 3.3; GBX IB at 62-63.

Grain Belt Express explains that its witness Dr. Karl McDermott, Ameren Distinguished Professor of Business and Government at the University of Illinois, Springfield ("UIS"), Director of the Center for Business and Regulation in the College of Business and Management at UIS, and Special Consultant to National Economic Research Associates, used Mr. Cleveland's results and other information to evaluate whether construction and operation of the Project will promote the development of an effectively competitive electricity market that operates efficiently and is equitable to all customers. Dr. McDermott stated that if a transmission project is promoting competition in the relevant electricity market, there should be downward pressure on prices, which will be manifested as lower average wholesale electricity prices. GBX Ex. 4.0 at 3, 9. Additionally, we should find that the level of economic import capability should increase, thereby allowing a greater level of lower-cost generation resources to compete in the Illinois market and allowing for greater competitive pressure on prices. *Id.* at 9. Dr. McDermott concluded that the Project will allow more generation, and lower cost generation, to enter the Illinois electricity market, which will create competitive downward pressure on prices in the wholesale electricity market. *Id.* at 3. He stated that while Illinois is currently part of an effectively competitive electricity market, the additional transmission capacity provided by the Project will promote additional efficiencies by increasing the size of the supply side of the market competing to serve load in Illinois and by opening the Illinois market to lower cost generation resources. In doing so, the Project will promote the development of an effectively competitive electricity market. *Id*.; GBX IB at 63-64.

Dr. McDermott further noted that the projected downward pressure on electricity prices is a strong indication of a market that is operating efficiently and is expected to benefit customers directly through lower prices for electricity. GBX Ex. 4.0 at 3. Additionally, he found that the quantity of capacity able to compete effectively to serve load in Illinois will increase as a result of the Project. Further, the high value renewable resources which the Project will enable to access the Illinois market should have the effect of providing competitive pressures on prices in markets for RECs as well as for renewable energy. *Id*. at 4. Dr. McDermott explained that for ComEd and Ameren retail customers who buy power through the real-time or close to real-time wholesale markets, any reduction in wholesale electricity prices will provide a direct and immediate benefit to these customers. *Id.* at 9. For those customers that buy electricity from ComEd or Ameren through the IPA-administered procurement process, the benefits to retail customers will manifest through the daily balancing process the utilities undertake, and will subsequently reduce the purchased energy adjustment in the long term, as contracts of more recent vintage are added to the supply portfolio. *Id.* at 9-10. Similarly, for other customers who buy electricity under contracts (*e.g.*, in municipal aggregation programs, which typically involve 1 to 2 year contracts), the benefits will manifest as new contracts are entered into. *Id*.; GBX IB at 64-65.

Dr. McDermott explained how the Project can promote the development of an effectively competitive electricity market even though Illinois is already part of an effectively competitive electricity market. GBX Ex. 4.0 at 3, 16. He stated that the project will promote change that results in additional efficiencies to the market, by increasing the size of the supply side of the market competing to serve load in Illinois and opening the Illinois market to lower cost generation resources. *Id.* This increased supply will promote increased competitiveness in the market and lower electricity prices. *Id.* He stated that whether the market is effectively competitive does not answer the question of whether further efficiencies can be gained. *Id.* at 16. He explained that the very nature of "promoting" is to further the development or growth of the market, which his analysis attempts to ascertain. *Id.* He stated that this perspective is consistent with the Commission's analysis of this issue in its order granting a CPCN for the ComEd Grand Prairie Gateway transmission project, where the Commission stated:

> It is this Commission's position that Illinois is currently part of an effectively competitive electricity market; however, what is not clear, is whether that market is currently operating as efficiently as it could be. Thus, in order for a proposed project to gain approval under this section of the Act it must "promote" or "develop" a change that results in *additional* efficiencies to the market. Of course, as outlined above the Commission must also find that these additional efficiencies will be needful and useful to the public in order to justify the cost of the Project. (Order in Docket No. 13-0657 at 21-22, emphasis in original; cited at GBX Ex. 4.0 at 16-17.)

Dr. McDermott stated that the Project will enable lower cost generation resources to bid into the market that, without the Project, would not be able to do so, and thereby will enable changes in the markets that are of interest to the statutory test. GBX Ex. 4.0 at 17. He explained that his two analyses – the analysis of how market prices are affected by the increase in supply made possible by the Project, and the analysis of access for additional generation to the market that is opened up by the Project – address the question of what change to the market is promoted by the Project. *Id.* He

stated that these are common economic analyses when reviewing the competitiveness of a market; they do not just provide insight into whether a market is competitive, but evaluate the effect of new competition or access to the market. *Id*. Finally, he pointed out that assuring the market remains competitive, and in fact improves its competitiveness, is critically dependent on a strong transmission network to bring generation, often from long distances, to the market of interest. *Id.* He stated that a competitive market is on-going, dynamic, and continues to evolve. *Id.* at 18. Its infrastructure must evolve and adapt for the market to remain competitive. *Id.* Whether or not a competitive market currently exists, actions taken to increase supply to that market will tend to promote the market either remaining competitive or becoming more competitive. *Id.* at 17-18; GBX IB at 65-66.

Grain Belt Express explains that for his first analysis, Dr. McDermott, using Mr. Cleveland's results, calculated the net present value ("NPV") of the reduction in demand costs in Illinois resulting from construction and operation of the Project and the associated Kansas wind generation over the 2020-2024 period under each of the four scenarios. GBX Ex. 4.0 at 26-29. He found that the NPV reduction in the costs to serve load in Illinois over this period ranges from $256 million to $726 million (in 2015 dollars), depending on the scenario analyzed. GBX Ex. 4.0 at 29-30. Based on the structure of the Illinois electricity market, he assumed that all the reductions in costs resulting from the Project would be passed through to retail customers and reflected in the cost to serve load. *Id*. at 9-14, 26. He explained that, under commonly-used financial analysis practices, if the NPV of costs is lower in the scenario with a proposed project than in the scenario without the project, the project is beneficial. *Id*. at 28. Further, there are NPV cost reductions in both the PJM and MISO regions of Illinois under all four scenarios. *Id*. at 31-32; GBX IB at 66-67. In addition to his Illinois-specific analysis of benefits from the Project, Dr. McDermott estimated the benefits across the entire Eastern Interconnection by estimating overall production cost savings in the region. He calculated that NPV benefits of the Project in the Eastern Interconnection in 2020-2024 range from $2.081 billion in the Slow Growth scenario to $3.766 billion in the Green Economy scenario. GBX Ex. 4.0 at 38-39; GBX IB at 67.

Grain Belt Express states that Dr. McDermott also calculated the NPV reductions in cost to load for alternative periods ending in 2022 and 2025, and found that the smallest NPV benefits under any of the scenarios for any period analyzed exceeded $120 million; therefore, the choice of the analysis period affected only the amount of benefits from the Project, not the existence of benefits from the Project, and did not change the overall conclusions of his analysis. GBX Ex. 4.0 Rev. at 37; GBX IB at 67.

Dr. McDermott also analyzed the potential benefits of the Project on the market for RECs in Illinois. He stated that to the extent that RECs produced by the wind generation connected to the Project enter the Illinois energy portfolio, either through the IPA procurement process or non-IPA purchases, there will be competitive pressures on REC prices that will benefit Illinois consumers. *Id*. at 7-8; GBX Ex. 11.0 at 17-19. Further, the REC market is not limited to Illinois, but is regional in nature, potentially covering the entire AC transmission system east of the Rocky Mountains, due to the ability to use RECs produced by generators in one state to meet compliance obligations in another state. He explained that the REC market in the Eastern Interconnection is larger than in Illinois, and by providing access to both standalone RECs and bundled (*i.e.* with the associated energy) RECs, the Project should have a positive, beneficial

effect on the entire regional REC market. GBX Ex. 4.0 at 8, 19-20. He stated that the high value renewable resources that the Project will enable to access the Illinois market should exert competitive pressure on prices in the markets for both renewable energy and RECs. *Id.* at 4; GBX IB at 67-68.

Based on his analysis of the electricity and REC markets, Dr. McDermott concluded that the Project is clearly beneficial to Illinois consumers in terms of lowering the cost to serve electric load in Illinois, and that the Project is capable of exerting downward pressure on REC prices. GBX Ex. 4.0 at 38. Therefore, he concluded, the Project promotes the development of an effectively competitive electricity market promoting efficient operations. He stated that to the extent the benefits flow through to customers' bills either from direct market-based purchases or from purchases through a competitive process (such as IPA procurements), these efficiencies should flow to all customers in an equitable fashion. Finally, he concluded it is likely that the Project will have positive benefits in the market for RECs. *Id*.; GBX IB at 68.

Grain Belt Express stated that in his second analysis, Dr. McDermott analyzed the impact of the Project on the amount of generation capacity competing to serve the Illinois wholesale electricity market. GBX Ex. 4.0 at 22. He performed this analysis by determining the increase in "economic capacity" that can compete to supply the Illinois market with the Project. *Id.* "Economic capacity" in this analysis is defined as the generation supply that can be delivered into a destination market at a delivered cost less than 105% of the price in the destination market, and can therefore compete to supply load in the destination market, and whose ability to do so contributes to competition in the destination market. This construct and definition are used in the Delivered Price Test in FERC's Merger Policy Statement, which is a recognized standard for measuring the relevant size of the electricity markets for competitive analysis. *Id*. at 22-23. Dr. McDermott found that, based on the year and the future scenario considered, the quantity of capacity competing to serve load in Illinois will increase as a result of the Project by up to 6.1% of total economic capacity, depending on the year, future scenario and load conditions evaluated. More generally, his analysis shows that the Project is projected to increase the economic capacity able to supply the Illinois market by between 1.0 % and 6.1% in 2020 (depending on the scenario analyzed) and between 0.2% and 2.7% in 2024. *Id*. at 40-44. " Dr. McDermott found that, overall, the Project is highly likely to increase the economic capacity that is able to supply the Illinois market. *Id.* at 43; GBX IB at 68-69.

Grain Belt Express states that, as part of the economic capacity analysis, Dr. McDermott also analyzed how the size of the REC markets (*i.e.*, the amounts of capacity to produce RECs ("REC capacity") and volume of RECs produced ("REC energy")) would be impacted by the Project. Using the two study years 2020 and 2024, he found that (1) in 2020, the Project provides for an increase of 6% to 9% of REC capacity and an increase of 9% to 13% in REC energy in PJM and MISO; (2) in 2020, the Project provides for an increase of 3% to 5% of REC capacity and an increase of 4% to 7% in REC energy in the Eastern Interconnection; (3) in 2024, the Project provides for an increase of 5% to 8% of REC capacity and an increase of 7% to 12% in REC energy in PJM and MISO; and (4) in 2024, the Project provides for an increase of 3% to 4% of REC capacity and an increase of 4% to 6% in REC energy in the Eastern Interconnection. GBX Ex. 4.0 at 44-46; GBX IB at 69.

Based on all of his analyses, Dr. McDermott concluded that the Project satisfies

the criterion set forth in §8-406(b) that it "will promote the development of an effectively competitive electricity market that operates efficiently [and] is equitable to all customers" and satisfies the provision of §8-503 that the Project will "promote the development of an effectively competitive electricity market." GBX Ex. 4.0 at 4-5; GBX IB at 69.

Grain Belt Express states that in addition to the analyses presented by Mr. Cleveland and Dr. McDermott, which showed that the Project and the western Kansas wind generation it will enable to access the PJM and MISO electricity markets will lower electricity prices in Illinois, Grain Belt Express witness David Berry presented levelized cost of energy ("LCOE") and present value revenue requirements ("PVRR") analyses to compare the cost of energy from western Kansas wind farms delivered by the Project to the cost of energy from other potential alternatives. GBX Ex. 11.0 at 38-45. GBX states that a LCOE analysis allows the comparison of different alternatives using a single analytical method, by condensing all the costs of each alternative into a single cost per unit of energy produced. LCOE takes into account all costs of generating electricity, including capital costs, operating costs, taxes, cost of capital, and transmission service costs, in arriving at a single cost per unit of energy figure. Further, sensitivities can be run using different values of the input variables to determine the impact of different assumptions on the LCOE of the alternative. The LCOE figure for a generation alternative can represent the cost per MWh for a power purchase agreement that a utility or other buyer would enter into to purchase energy from that alternative. GBX Ex. 11.0 at 38-39; GBX IB at 69-70.

Grain Belt Express states that Mr. Berry calculated and compared the LCOE for (1) western Kansas wind generators plus the Project, (2) new wind generation constructed in Illinois, and (3) new combined cycle gas-fueled generation. This analysis showed that, both with and without continuation of the production tax credit ("PTC") for wind generation, the LCOE of new Kansas wind generation plus the Project (*i.e.*, the cost of the output of new Kansas wind generation delivered to Illinois by the Project) is lower than the LCOE of new wind farms in Illinois, and is fully cost-competitive with the LCOE of a new gas-fueled generating plants that could be built in Illinois. He also analyzed a number of different scenarios using different values of input variables for the costs of the alternatives. His analysis concluded that the LCOE of the Kansas wind plus the Project scenario was lower than the LCOE of new Illinois wind generation in 83% of the scenarios studied; and was also lower than the LCOE of new Illinois gas-fueled generation in 83% of the scenarios studied. GBX Ex. 11.0 at 39-40, 44; GBX Exs. 11.7-11.8; GBX IB at 70-71.

Grain Belt Express states that Mr. Berry also compared these alternatives using a PVRR analysis, which is similar to LCOE analysis in that both use a financial model to compare the combined capital, financing and operating costs of different alternatives. GBX states that Mr. Berry used the same PVRR methodology employed by Commission Staff economist Mr. Zuraski in the Rock Island CPCN case, Docket 12-0560, on which the Commission placed principal reliance in that case in reaching its conclusion that the Rock Island project will promote the development of an effectively competitive electricity market. GBX states that Mr. Zuraski's model recognizes that Illinois has a market-based system for procuring electric generation through the PJM and MISO markets, by taking into account the expected market revenues from each alternative; this approach is appropriate in light of the competitive Illinois electricity market and the statutory criterion that the proposed transmission line will promote the

development of an effectively competitive electricity market. Thus, the PVRR of each alternative is the difference between the revenues needed to cover all the costs of the alternative (including return on equity), and the projected market revenues for the alternative. GBX Ex. 11.0 at 41-42; GBX Ex. 11.13 at 43-44; GBX IB at 71-72.

Grain Belt Express stated that, as with the LCOE analysis, Mr. Berry's PVRR analysis took into account uncertainties about future costs and other variables by performing numerous sensitivities using different values for input variables. The sensitivities involved differing values for, among other inputs, the capital and operational costs of wind farms; the capital cost of the Project; the capital and operational costs and heat rate of new combined cycle gas generation; natural gas prices; wholesale electricity prices; and rate of return on investment, as well as the presence or absence of the PTC. The differing values used for input assumptions resulted in a total of 13,122 different scenarios considered in the PVRR analysis. GBX Ex. 11.0 at 43; GBX Ex. 11.7; GBX IB at 72.

Grain Belt Express states that Mr. Berry's PVRR analysis showed that new western Kansas wind generation is the least cost alternative compared to new Illinois wind generation, to new gas-fueled generation in Illinois, and to simply buying power from the PJM market at projected market prices. Specifically with respect to the large number of scenarios considered, the PVRR for electricity generated by wind farms in western Kansas and delivered by the Project is (1) lower than the PVRR of new Illinois wind generation in 98% of the 13,122 scenarios, and (2) lower that the PVRR of new combined cycle gas generation in Illinois in 90% of the 13,122 scenarios. GBX states that using a range of real discount rates from 1% up to 9% for the PVRR discounting, the average 40-year PVRR advantage for the Kansas wind plus the Project alternative was $2.2 billion (at a 9% discount rate) to $7.8 billion (at a 1% discount rate) over new Illinois wind generation, and $4.0 billion (at a 9% discount rate) to $16.7 billion (at a 1% discount rate) over new Illinois gas-fueled generation. GBX Ex. 11.0 at 41-42, 44-45; GBX Ex. 11.7-11.8; GBX IB at 72-73.

Grain Belt Express states that the PVRR analysis shows, across a wide range of scenarios, that the forecasted revenues from selling energy in PJM are sufficient to cover the costs of generating electricity at wind farms in western Kansas and transporting the electricity on the Project to PJM (*i.e.*, to cover the capital, operating and financing costs of the Project and the Kansas wind generators), without increasing costs to ratepayers. The PVRR analysis also shows that over a broad range of future outcomes, Kansas wind generation plus the Project is expected to be the lowest cost way to provide electricity to the Illinois market and to meet the demand for electricity from renewable resources and the demand for electricity generally. Thus, GBX states, the PVRR analysis shows that the Project offers shippers (both prospective wind generator operators in western Kansas and purchasers of electricity in Illinois and other PJM states) an economically compelling, and commercially attractive, proposition. GBX Ex. 11.0 at 42-43, 44-45; Tr. 994, 997; GBX IB at 73.

Grain Belt Express states that in rebuttal testimony, Mr. Berry revised his LCOE and PVRR analyses to take into account a change in Kansas law, relating to the property tax treatment of new Kansas wind farms, which was enacted into law after his direct testimony was filed. The change in Kansas law limits the property tax exemption for wind farms to the first 10 years after completion of construction; thereafter, they are assessed at 25% of current value. GBX Ex. 11.13 at 29; ICC Staff Ex. 3.0 at 5. The

revised analyses showed that the change in the Kansas property tax law resulted in only a small increase in the LCOE of the Project plus Kansas wind generation option (approximately $1/MWh, or 0.1 cent per kwh). This option continues to have a lower LCOE and PVRR than new wind generation in Illinois or new gas-fueled generation, in the large majority of scenarios studied. GBX Ex. 11.13 at 29; GBX IB at 73.

Grain Belt Express responded to the argument of intervenor witness Mr. Severson who disputed that Grain Belt Express will recover its costs only from its charges for service to its transmission service customers, contending that these customers would in turn pass these costs on to their customers. MEZ Ex. 1.0 at 20-22. GBX stated that Mr. Severson's argument misses the point being made by Grain Belt Express, which is that it will not recover its costs through a socialized cost recovery mechanism such as spreading them to all retail ratepayers through an RTO transmission tariff. GBX stated that, further, only transmission customers who see competitive value in Grain Belt Express's transmission service will purchase the service and pay the transmission charges. No transmission customer is compelled to buy service, and only the direct users of the line will pay for service on the Project. GBX stated that while the Project's transmission customers (whether Kanas wind generators or load-serving entities in PJM and MISO) may bill their customers using either an all-in price or a price that separately breaks out transmission costs, only end-user customers who find the supplier's delivered price for power to be a competitive offering will take service from that supplier. GBX Ex. 11.13 at 12-14. GBX also reiterated that the analyses presented in this case show that the delivered price of power from Kansas wind generators via the Project will be lower than projected market prices in PJM and lower than or competitive with the cost of power from other sources. GBX IB at 11.

Grain Belt Express states that Mr. Berry agreed with the conclusion of Staff witness Mr. Zuraski, that the Grain Belt Express Project will promote the development of an effectively competitive electricity market because it is lower cost than alternatives. Mr. Berry noted that in addition to reviewing Grain Belt Express's LCOE and PVRR analyses (which were based on Mr. Zuraski's approach in the Rock Island CPCN proceeding), Mr. Zuraski also performed his own analysis, which resulted in the same conclusion. GBX Ex. 11.13 at 28. Mr. Berry also agreed with Mr. Zuraski's conclusion that Kansas wind plus the Project can compete with both new Illinois wind generation and new Illinois gas-fueled generation even if the Kansas wind plus the Project alternative has a slightly higher LCOE than the other two alternatives. GBX Ex. 11.13 at 38, 40. Mr. Berry noted, however, that his analyses (as well as Mr. Zuraski's analysis) continued to show that the Kansas wind generation plus the Project alternative has a lower LCOE than either new Illinois wind generation or new combined cycle gas generation. *Id.* at 38-40; GBX IB at 73-74.

Grain Belt Express states that, based on consideration of Mr. Zuraski's testimony, Mr. Berry noted the following benefits of the Kansas wind generation plus the Project alternative, and additional costs of the other alternatives, which are not captured in the LCOE and PVRR analyses: (1) Kansas wind generation provides geographic diversification to the PJM grid, which will reduce variability from wind power and allow more wind power to be integrated into the grid; this important benefit is not captured in the LCOE and PVRR analyses, resulting in an understatement of the benefits of Kansas wind generation and the Project relative to the alternatives. GBX Ex. 11.13 at 38. (2) As noted by Mr. Zuraski, the scarcity of good sites for new wind generation projects is a

much bigger constraint in building new wind generation in Illinois than in Kansas. As more wind generation is built in Illinois, subsequent plants will be built at less windy sites. In contrast, there are effectively limitless windy sites for new wind generation in western Kansas. *Id.* at 38-39. (3) Additionally, the cost to interconnect new wind generation in Illinois to the transmission grid will increase over time, as sites with good access to the existing transmission grid are exhausted. In contrast, the Project will assure that the new wind generation in Kansas that connects to the Project will have access to transmission. Mr. Berry noted that the LCOE and PVRR analyses he (and other witnesses) performed did not include any transmission upgrade costs for the alternative of 4,000 MW of new Illinois wind farms, and therefore understated the costs of new Illinois wind generation relative to Kansas wind generation delivered by the Project. *Id.* at 38-39. (4) The LCOE and PVRR analyses assigned no capacity value to the Kansas wind generation (or Illinois wind generation) alternatives, even though new wind generation will surely provide some capacity value. In fact, Mr. Zavadil's LOLE analysis found that the Project adds dependable capacity equal to 28% of its nameplate capacity (GBX Ex. 6.0 at 11). Mr. Berry stated that modifying the LCOE and PVRR analyses to include this capacity value for the wind generation alternatives at the same capacity price assumed for gas-fueled generation improves the LCOE and PVRR of the wind generation alternative relative to the combined cycle gas alternative. GBX Ex. 11.13 at 40-41; GBX Ex. 11.19; GBX IB at 74-75.

Grain Belt Express states that in his rebuttal testimony, Mr. Berry also responded to changes in assumptions for the LCOE analyses proposed by LACI witness Dr. Proctor. As stated above, Mr. Berry agreed with the revision to reflect the newly-enacted Kansas law concerning the property tax treatment of wind farms (which had also been identified by Mr. Zuraski). Mr. Berry did not agree with any of Dr. Proctor's other assumption changes. Mr. Berry also testified that the LCOE model used by Dr. Proctor differed from Mr. Zuraski's and Mr. Berry's model, in that Dr. Proctor's model did not consider market revenues or LMP reductions in any manner, and therefore did not reflect the competitive electricity markets in Illinois (and in the PJM and MISO RTOs) and therefore was not the best tool for evaluating whether the Project promotes competition. Mr. Berry stated that Dr. Proctor failed to evaluate how the cost of the Project's delivered energy from Kansas wind generators compares to wholesale electricity market prices. He stated that considering whether a proposed project can be supported by market revenues is important in determining whether it contributes to a functioning, competitive electricity market, which Dr. Proctor's model failed to do. GBX Ex. 11.13 at 41, 43-44; GBX IB at 72, 75.

Grain Belt Express states that Mr. Berry's analyses of the additional or changed assumptions used by Dr. Proctor were as follows: First, Dr. Proctor assigned an additional cost to wind energy plants based on the assumption that a simple cycle gas generating plant of equal capacity needs to be built for every new wind generator. Mr. Berry explained that this assumption is at odds with the realities of how wind generation is integrated into overall grid operations. Mr. Berry stated that, additionally, this "capacity adder" is not an actual cost assessed by PJM or MISO to wind generators or their customers; it is an unjustified cost adder to increase the LCOE of the wind generation options relative the combined cycle gas generation option. GBX Ex. 11.13 at 44; GBX IB at 75

Second, Dr. Proctor used unreasonably low inflation assumptions, which were

inconsistent with consensus economic data and forecasts. GBX states that Dr. Proctor used an imputed forecast of natural gas price increases as the inflation forecast for all costs. Mr. Berry explained that this unsupported inflation assumption made the combined cycle gas alternative artificially less expensive than the two wind energy alternatives. GBX Ex. 11.13 at 50-52; GBX IB at 75.

Third, Dr. Proctor erroneously used the same capital costs per MW of capacity for new wind farms in both Illinois and Kansas, whereas all data and information in the record shows that costs for new wind farms are lower in Kansas than in Illinois. Mr. Berry explained that Dr. Proctor's erroneous assumption, which increased the cost of the Kansas wind alternative relative to Illinois wind, was based on misreading data in the DOE's 2013 Wind Technologies Market Report, which reported that the capital costs of wind projects installed in 2012-2013 in the region of the country including Kansas averaged $1,755 per kw of capacity, versus $2,033 per kw of capacity for new wind projects in the region that includes Illinois. GBX Ex. 11.13 at 52-53; GBX IB at 75-76.

Fourth, Dr. Proctor assumed that wind plant capital costs will increase over the study period at the full rate of inflation. Mr. Berry explained that, in fact, wind plant capital costs have been declining in nominal dollars in recent years due to more efficient manufacturing and economies of scale in both generator size and number of turbines produced. Mr. Berry pointed out that Dr. Proctor's assumption for increasing wind plant capital costs was inconsistent with his testimony that "[w]ith the development of new technologies in converting wind to electrical energy and economies of scale in wind turbine size, it is likely for the foreseeable future that renewable energy is a decreasing cost industry." GBX Ex. 11.13 at 54; LACI Ex. 5.0 Rev. at 14-15; GBX IB at 76.

Fifth, Mr. Berry testified that with no citation of supporting data, Dr. Proctor reduced the capacity factor for new Kansas wind generators. Mr. Berry stated that, in contrast, the capacity factor for new Kansas wind generators used in his own analyses was based on actual wind speed data from meteorological stations in the vicinity of the Project's Kansas converter station, applied to the power curves supplied by the manufacturer of two current generation wind turbine models. Mr. Berry testified that Dr. Proctor's arbitrary reduction in the capacity factor for new wind plants ignored current turbine technology. GBX Ex. 11.0 at 11; GBX Ex. 11.13 at 54-55; GBX IB at 76.

Sixth, Dr. Proctor also arbitrarily added 20% to the projected capital cost of the Project. Mr. Berry explained that Dr. Proctor based this assumption on two sources that, upon review, did not support his assumption. Mr. Berry also pointed out that the capital cost estimate for the Project already includes adders for contingency in specific components of the estimate to account for potential capital cost increases due to factors such as inflation in materials costs, increases in labor rates, or weather delays. Mr. Berry further explained that with a reasonably well-defined route identified for the Project, the volumes of commodities and number of structures in the estimate, and the amount of labor needed to install them, are unlikely to increase materially. GBX Ex. 11.13 at 55-56; GBX IB at 76. However, to test the impact of potential increases in the capital cost for the Project, Mr. Berry included a scenario with a 20% capital cost increase for the Project in his PVRR analyses. GBX Ex.11.8 at 1. The results showed that Kansas wind generation plus the Project still had a lower PVRR (using a 5% discount rate) than new Illinois wind generation in 95% of scenarios and a lower PVRR (using a 5% discount rate) than new combined cycle gas generation in 89% of scenarios. GBX Ex. 11.16 at 1.

Additionally, Mr. Berry pointed out that Dr. Proctor applied his 20% capital cost increase only to the Grain Belt Express Project and not to the capital costs of any of the other alternatives. GBX Ex. 11.13 at 56; GBX IB at 76.

Grain Belt Express states that with Dr. Proctor's arbitrary and unreasonable assumptions removed, or modified to supportable values, Dr. Proctor's LCOE model calculates that Kansas wind generation plus the Project has a significantly lower LCOE than either the new Illinois wind generation option or the combined cycle gas generation option (GBX Ex. 11.13 at 56; GBX IB at 77):

Grain Belt Express (Kansas wind):	$ 86.73
Combined cycle gas generation:	$ 97.90
Illinois wind generation:	$106.85

GBX also points out that when Dr. Proctor corrected calculation errors in his analysis, but continued to use the input values he contended were appropriate, his own analysis showed that the Kansas wind plus the Project alternative has a lower LCOE than either new Illinois generation or advanced combined cycle gas generation. LACI Ex. 3.2 Rev. at 2; GBX Ex. 11.13 at 42-43; GBX IB at 77.

Grain Belt Express states that in his testimony, Dr. Proctor also introduced a new alternative, the installation of 4,000 MW of new wind generation in the MISO region (*e.g.,* in northwest Iowa, Minnesota or the Dakotas), which he claimed had a lower LCOE than Kansas wind generation delivered by the Project. GBX contends that this additional analysis was flawed because Dr. Proctor did not show that the alternative was feasible based on the existing transmission grid, did not provide for the cost to construct new transmission to accommodate this alternative, and did not provide any estimate of transmission costs for this alternative. GBX states that Dr. Proctor did not present any transmission analyses to determine if new wind generation in these areas could actually be interconnected to the grid in these locations and then moved to load and population centers. Mr. Berry testified that, In fact, there is not enough existing transmission to support this amount of new wind generation in the areas within MISO identified by Dr. Proctor. Mr. Berry also explained that the already-approved MISO MVP projects will not be sufficient to provide for delivery of the hypothetical new MISO wind plants, without the construction of additional transmission. Mr. Berry also explained that Dr. Proctor ignored the additional congestion and losses costs that would result from the installation of this significant new amount of wind generation capacity in MISO. GBX Ex. 11.13 at 41-42, 45-47. GBX concludes that, it is not surprising that, without quantifying transmission costs, Dr. Proctor could "show" that new wind plants in northwest Iowa, Minnesota and the Dakotas, with no transmission costs provided for, would have a lower LCOE than new Kansas wind generation *plus* the Project (including the network upgrades required to connect the Project with the PJM grid). GBX Ex. 11.13 at 45-46; GBX IB at 77-78. Finally, GBX states that Mr. Berry showed that with a reasonable estimate of transmission costs and congestion costs included for the "MISO wind" alternative (assuming it were feasible in any event), the "MISO wind" alternative was shown to be not competitive with Kansas wind generation delivered by the Project. With an appropriate allowance for transmission and interconnection costs included, Dr. Proctor's MISO wind alternative has a higher LCOE than Kansas wind generation plus the Project. GBX Ex. 11.13 at 42, 47-48; GBX IB at 78.

Grain Belt Express states that in addition to its own evidence, Commission Staff witness Richard Zuraski stated in his direct testimony that, based on his evaluation, he expected the Project will promote the public convenience and necessity and will promote the development of an effectively competitive electricity market that operates efficiently, is equitable to all customers, and is the least-cost means of satisfying those objectives. ICC Staff Ex. 3.0 at 3; Tr. 1123-1125, 1126. Mr. Zuraski noted that while the Project may fail to be built, or could be underutilized, or for other reasons fail to provide the full projected benefits, most of the risk of these outcomes rests on Grain Belt Express' investors, rather than on the public, due to Grain Belt Express being a merchant transmission company. ICC Staff Ex. 3.0 at 5-6. He noted that Grain Belt Express plans to recover its costs through charges to the transmission customers of the Project, and that Grain Belt Express is proposing that the Commission impose the same requirement imposed on Rock Island in Docket 12-0560, that prior to recovering any costs from Illinois retail ratepayers through PJM or MISO regional cost allocation, Grain Belt Express will obtain the permission of the Commission in a new proceeding initiated by Grain Belt Express. *Id*. at 6. Grain Belt Express points out that Mr. Zuraski agreed with the opinion of GBX witness Dr. McDermott that the Project, if built, will promote increased competitive pressure on prices in the wholesale electricity market, the REC markets and renewable energy markets. ICC Staff Ex. 3.0 at 7; GBX IB at 78-79.

Grain Belt Express notes that, with respect to whether the competitive electricity market is equitable to all customers, Mr. Zuraski testified that the wholesale electricity market is the most directly relevant competitive electricity market in the context of the Project. ICC Staff Ex. 3.0 at 9. He stated that the wholesale market is one where customers pay the marginal cost of production. *Id.* He stated that in Illinois, the utilities generally pass wholesale prices along, dollar-for-dollar, to their retail bundled service customers, albeit with averaging. *Id.* He stated that economic theory indicates that ARES do something similar. *Id.* at 9-10. He concluded that he saw nothing about the wholesale and retail electricity markets, or about the Grain Belt Express Project, that he found to be inequitable. *Id.*; GBX IB at 80.

Grain Belt Express also points out that Mr. Zuraski, after reviewing the direct testimony of intervenor witness Dr. Proctor, filed rebuttal testimony in which Mr. Zuraski. testified that Dr. Proctor's testimony did not cause him to change his opinion of the Project. ICC Staff Ex. 5.0 at 1. With respect to the changed inputs and assumptions which Dr. Proctor had made to Grain Belt Express' LCOE studies, Mr. Zuraski stated that the change to reflect the amended Kansas property tax law was the only one of Dr. Proctor's changes that Mr. Zuraski found to be persuasive. Mr. Zuraski also noted, with respect to Dr. Proctor's proposal to add 20% to the capital cost of the Project, that this was one of the sensitivity cases already included in both Mr. Berry's analysis and Mr. Zuraski's analysis. ICC Staff Ex. 5.0 at 3; GBX IB at 80.

Grain Belt Express notes that in his rebuttal testimony, Mr. Zuraski reported that he had undertaken his own LCOE analysis of the Project compared to other alternatives, using his own model. ICC Staff Ex. 5.0 at 3. His analyses showed that building wind farms in Kansas and using the Grain Belt Express transmission line would be less costly, on a net per unit of energy basis, than either building Illinois wind farms or combined cycle generating facilities. *Id.* It also showed that the Kansas wind-and-the Project option remains less costly than both new Illinois wind projects and new combined cycle gas projects, even if the capital costs for the Project are increased by

20%. *Id*. Mr. Zuraski stated that, like Mr. Berry's analysis, his analysis considered the effects of varying a number of input values, including the capital costs of the Project, the PTC, and carbon emission costs. *Id.* at 4. He stated that a total of 13,122 different combinations of inputs were used. *Id.* He reported that Kansas wind plus the Project is less expensive than Illinois wind in 73% of the 13,122 scenarios, and that Kansas wind plus the Project is less expensive than combined cycle generation in 78% of the 13,122 scenarios. *Id.* at 4; GBX IB at 80-81.

Additionally, Mr. Zuraski testified that for purposes of determining whether the Project will promote the public convenience and necessity, it is "not critically important" to show that Kansas wind generators can produce electricity at lower cost than combined cycle generators. ICC Staff Ex. 5.0 at 5. He explained that both non-dispatchable no-fuel technologies like wind generators and dispatchable fuel-fired technologies like combined cycle generators play somewhat different roles, satisfy different requirements, and entail different risks, so comparing their LCOEs is not dispositive of how interested utilities and merchant generators will be in building one versus the other. *Id.* He stated, however, that while not a necessary condition, it is a good sign for the ultimate success of the Project, as well as for the welfare of consumers, if we can reasonably expect that wind generated electricity can be produced at a low LCOE relative to other alternatives. *Id.* at 4-5; GBX IB at 81.

Grain Belt Express notes that Mr. Zuraski also testified that for purposes of determining whether the Project will promote the public convenience and necessity, it is not absolutely necessary that Kansas wind farms be expected to produce energy at lower cost than Illinois wind farms. ICC Staff Ex. 5.0 at 5. He explained that even if the expected cost of Kansas wind farms and the Project exceeded the expected cost of new Illinois wind farms, there would be value in the increased geographical diversity introduced by integrating the Kansas wind generators into the rest of the grid. *Id.* He stated that the additional geographic diversity decreases the degree to which total wind-generated electricity varies over time, thereby rendering the collective wind resource less like a non-dispatchable resource and more like a base load resource. *Id.* at 5-6. Mr. Zuraski further explained that to the extent that, over time, fewer and fewer prime locations in Illinois remain available for wind farm development, building new wind farms in the more wind-rich areas of Kansas may become the next best alternative, even if were not presently the best alternative. *Id.*at 6. He noted that none of the LCOE analyses presented in this case take into account the value of geographic diversity and the eventual depletion of prime locations within Illinois. *Id*. Mr. Zuraski observed, however, that for purposes of determining whether the Project is likely to promote the public convenience and necessity, it is reasonable to consider the relative costs of Kansas and Illinois wind projects, using a LCOE analysis. *Id.* at 6. He concluded that if, even without taking into account such factors as the value of geographic diversity and the eventual depletion of prime locations in Illinois, the LCOE analysis shows that the Kansas wind option is less expensive than the Illinois wind option in the base case, on average over the 13,122 sensitivity cases, and in 73% of the 13,122 sensitivity cases, that is a reasonably good sign that the Project is likely to be successful and to promote the public convenience and necessity. *Id.*; GBX IB at 81-82.

Grain Belt Express' Response to CCPO

Grain Belt Express responded to CCPO's position that an effectively competitive electricity market already exists in Illinois. CCPO IB at 10. GBX stated that as the

Commission has recognized in the Docket 13-0657 CPCN Order, and as Dr. McDermott and Commission Staff economist Mr. Zuraski testified, this does not preclude a new Project from meeting the statutory criterion of promoting the development of an effectively competitive electricity market, by introducing new efficiencies that are needful and useful to the public. GBX also disputed CCPO's contention that the questions "will the Grain Belt Express Project promote an effectively competitive market that operates efficiently?" and "will the Grain Belt Express Project promote the development of an effectively competitive electricity market that is equitable to all customers?" have not been answered in this case. CCPO IB at 11. Grain Belt Express states that these questions were answered in the affirmative by the testimony of (among others) Grain Belt Express witness Dr. McDermott (GBX Ex. 4.0), Staff witness Mr. Zuraski (ICC Staff Exs. 3.0 and 5.0), and WOW witness Mr. Goggin (WOW Ex. 1.0). Finally, Grain Belt Express responded to CCPO's assertion that the introduction of the Project into what is already an effectively competitive electricity market could decrease the efficiency of the market and create a situation that is not equitable to all customers. GBX notes that Dr. McDermott and Mr. Zuraski each analyzed the impact of the introduction of the Project and the connected low-cost Kansas wind generation into the existing, effectively competitive electricity market in Illinois, and both experts concluded that the Project will promote the development of an effectively competitive electricity market that operates efficiently and is equitable to all customers. GBX Ex. 4.0 at 3-5; ICC Staff Ex. 3.0 at 3; GBX RB at 28-29.

Grain Belt Express' Response to MEZ

Grain Belt Express stated that MEZ, like CCPO, argues that an effectively competitive electricity market already exists in Illinois (MEZ IB at 9-10), but that this circumstance in no way precludes a determination that a proposed new project can promote the development of an effectively competitive electricity market, pursuant to this criterion of §8-406.1(f)(1). GBX also responded to MEZ's argument that "in order to issue a CPCN to GBX and enable it to condemn the property of Illinois landowners under power of eminent domain, there must be a public need." MEZ IB at 10. Grain Belt Express reiterates that it has not requested eminent domain authority in this case, so whether a "public need" needs to be shown to obtain eminent domain authority pursuant to §8-509, or in the actual exercise of eminent domain authority in a condemnation case in circuit court (and if so, whether a "public need" for eminent domain purposes has been shown to exist), is not relevant to this proceeding and does not need to be determined here. GBX RB at 29-20.

Grain Belt Express responded to MEZ's argument that §8-406.1(f)(1) must be construed based on two unrelated provisions in other Articles of the Act, §16-101A(d) and §20-102(d). MEZ IB at 11. GBX states that this point of MEZ's argument is in fact pointless, since there is no dispute that part of the second alternative criterion in §8-406.1(f)(1) is "equitable to all customers." GBX states that in this case, witnesses for Grain Belt Express, Staff, and WOW have all concluded, based on detailed analysis, that the Project will promote the development of an effectively competitive electricity market that operates efficiently and is equitable to all customers. GBX RB at 30.

Grain Belt Express responded to MEZ's characterization of the benefits that the Project will bring to the Illinois electricity market and to Illinois electricity consumers as "*de minimis*." MEZ IB at 11. GBX stated that the analysis presented by Mr. Cleveland and Dr. McDermott shows that in its first five years of operation, the Project is projected

to provide net present value ("NPV") benefits to Illinois ratepayers, in terms of reduced costs to serve Illinois' electricity load, of $256,000,000 to $726,000,000, depending on the future economic and energy market scenario considered. GBX Ex, 4.0 at 29. GBX states that these NPV results are the present value of the electricity cost reductions in the years 2020 through 2024, discounted to 2015 at an 8% real discount rate (10.5% nominal discount rate, *see* GBX Ex. 4.0 at 29), which far exceeds current and anticipated inflation rates. At a 5% discount rate, the NPV benefits (cost savings) to Illinois consumers (again, in the first five years of the Project's operation) are $308,000,000 to $882,000,000; and at a 3% discount rate, the NPV benefits (cost savings) to Illinois consumers are $351,000,000 to $1,008,000,000. GBX Ex. 4.0 at 36; GBX RB at 30.

Finally, Grain Belt Express responded to MEZ's assertion that the costs of the Project may be imposed on Illinois ratepayers "if GBX chooses to pursue cost allocation." MEZ IB at 12. Grain Belt Express reiterated that it has no plans or intentions to pursue cost recovery through an RTO regional cost allocation mechanism, and in fact there currently is no such process available to a merchant, interregional transmission facility like the Project. GBX Ex. 1.0 at 14-15; GBX Ex. 11.0 at 67, 69-70; Tr. 208, 222. GBX also reiterated that the proposed cost allocation condition precludes Grain Belt Express from recovering any costs of the Project from Illinois retail ratepayers through PJM or MISO regional cost allocation without first obtaining the permission of the Commission in a separate proceeding initiated by Grain Belt Express. GBX states that in such a (hypothetical) Commission proceeding, Grain Belt Express expects that the Commission would base its determination on whether the benefits (whether economic benefits or reliability benefits) of the Project for the Illinois public exceed the costs that Grain Belt Express would be proposing to recover from Illinois retail ratepayers. GBX Ex. 1.0 at 15; GBX Ex. 11.0 at 69. Further, Grain Belt Express states that in order for it (with the Commission's approval) to recover some or all of its costs through an RTO cost allocation mechanism, the RTO would be expected to determine that the benefits of the Project for ratepayers subject to the RTO transmission tariff exceed the costs that Grain Belt Express would be proposing to recover through the RTO tariff. GBX states that, in short, the scenario MEZ fears – that Grain Belt Express would be allowed to recover its costs from Illinois ratepayers through an RTO tariff mechanism, without a determination having been made that the Project is needed for reliability or economic purposes or that its benefits to ratepayers exceed the costs – cannot and would not happen. GBX RB at 31.

Grain Belt Express' Response to IAA

Grain Belt Express noted that IAA, like CCPO and MEZ, argues that that an effectively competitive electricity market already exists in Illinois. IAA IB at 28-29. GBX reiterates that this circumstance in no way precludes a determination that a proposed new project can promote the development of an effectively competitive electricity market, pursuant to this criterion of §8-406.1(f)(1). Dr. McDermott and Mr. Zuraski each analyzed the impact of the introduction of the Project and the connected low-cost Kansas wind generation into the existing, effectively competitive electricity market in Illinois, and both experts concluded that the Project will promote the development of an effectively competitive electricity market that operates efficiently and is equitable to all customers. GBX Ex. 4.0 at 3-5; ICC Staff Ex. 3.0 at 3; GBX RB at 31-32.

Grain Belt Express stated that IAA's argument that the applicant must show that

the proposed high voltage electric service line is *necessary* to promote the development of an effectively competitive electricity market (IAA IB at 28, 29) is a misreading of the statute. GBX states that the statutory criterion is that the proposed transmission line "will promote the development of an effectively competitive electricity market;" the words "necessary to" do not appear. GBX pointed out that the General Assembly *did* include the word "necessary" in the first alternative criterion of §8-406.1(f)(1) ("necessary to provide adequate, reliable, and efficient service . . ."), but not in the second alternative criterion. Grain Belt Express also noted that, as discussed in various parties' briefs, the courts and this Commission have recognized that the words "necessary" and "necessity" in the certificate sections of the Act are not to be construed as meaning "indispensably requisite," but rather as "needful and useful to the public." GBX states that the record in this case shows that the benefits the Project will provide will be needful and useful to the public in Illinois. GBX RB at 32.

Grain Belt Express responded to IAA's citation of testimony from intervenor witness Dr. Proctor (IAA IB at 29). According to Grain Belt Express, in the testimony cited by IAA, Dr. Proctor did not contend that the Project will not promote the development of an effectively competitive electricity market; rather, he contended that promoting the development of an effectively competitive market is not important in the context of the current wholesale electricity market. GBX states that this position is also a misreading or misapplication of the statutory criterion, or at a minimum an interpretation that injects qualifiers that do not appear in the statute. Dr. Proctor also stated, in the testimony quoted by IAA, that wholesale energy market prices do not include fixed costs and that the Commission needs to consider the ultimate costs to retail customers, but GBX points out that Dr. McDermott effectively rebutted this criticism, in his rebuttal testimony, GBX Exhibit 4.1, at pages 7-8. GBX RB at 32-33.

Grain Belt Express responded to IAA's assertion that Mr. Zuraski testified that Grain Belt Express' evidence "only focused on the benefits of the Project (gross economic impacts), and did not address any of its costs (net economic impacts) from an economic perspective," citing the cross-examination of Mr. Zuraski at Tr. 1140. GBX states that this is a misleading characterization of the record. GBX states that Mr. Zuraski's testimony at Tr. 1140 was specifically in reference to Dr. Loomis' study of the economic and employment benefits of the construction of the Project in Illinois, and *not* about the economic analyses presented by Grain Belt Express witnesses McDermott, Cleveland and Berry which demonstrate that the Project will promote the development of an effectively competitive electricity market:

> Q. Is it your understanding that in Dr. Loomis's study that he did not address the net economic impacts of the project and only analyzed the gross impacts of the project"
>
> A. I think that is a fair characterization, yes. (Tr. 1140.)

Further, Grain Belt Express states that in rebuttal testimony, it addressed the concern that Mr. Zuraski had raised. GBX points out that Staff, in its Initial Brief, after summarizing Grain Belt Express' response to Mr. Zuraski's concerns, states: "Taken as a whole, Staff considers this response to adequately address the caveats raised by Mr. Zuraski." Staff IB at 17. Further, Mr. Zuraski himself, based on his review of Grain Belt Express' economic studies and his own economic modeling, concluded that the Project will promote the development of an effectively competitive electricity market that

operates efficiently, is equitable to all customers, and is the least-cost means of satisfying those objectives. ICC Staff Ex. 3.0 at 3; *see* Staff IB at 13-17; GBX IB §IV.B.2.e; GBX RB at 33-34.

Finally, Grain Belt Express responded to IAA's quotation of Dr. Proctor's testimony to the effect that Dr. McDermott should have included a comparison of the cost of Kansas wind generation to Illinois wind generation in addressing the issue of increasing competition, and that a "wind-on-wind" comparison of these two alternatives shows that Illinois wind is the least-cost. IAA IB at 30. GBX notes that, as Dr. McDermott pointed out, this was not a valid criticism if his analysis, because determining whether the Project is "the least-cost means of satisfying those objectives" (§8-406.1(f)(1)) was not Dr. McDermott's assignment. Rather, that portion of the criterion was addressed by Mr. Berry and Dr. Galli and by Grain Belt Express' routing witnesses, Mr. Gaul and Mr. Lawlor. GBX Ex. 4.2 at 4-5. Grain Belt Express also states that Dr. Proctor's assertion that a "wind-on-wind" comparison of Kansas wind generation plus the Project to Illinois wind generation, shows the latter is the least-cost, is a product solely of the erroneous and unsupportable assumptions Dr. Proctor used in his LCOE analyses. GBX RB at 34-35.

b.-x. [Other Parties' Positions]

y. Commission Analysis and Conclusion

Based on its review of the Application and the evidentiary record and consideration of the arguments of the parties, and taking into account its finding with respect to the "least cost" provision in §IV.B.3 of this Order, the Commission finds that the Grain Belt Express Project will promote the development of an effectively competitive electricity market that operates efficiently, is equitable to all customers, and is the least cost means of satisfying those objectives. In reaching this finding, the Commission relies primarily on the testimony of and analyses presented by GBX witnesses Cleveland, McDermott and Berry and Commission Staff witness Mr. Zuraski. This finding is also supported by the testimonies of witness Langley of Infinity Wind Power and witness Goggin of WOW, both of whom explained how the construction and operation of the Project and the transmission service it will provide will promote the development of an effectively competitive electricity market.

As it did in the Grand Prairie Gateway (Docket 13-0657) and Rock Island (Docket 12-0560) CPCN cases, the Commission rejects arguments that because the Illinois and regional electricity markets are already competitive, it is not possible for the Project to promote the development of an effectively competitive electricity market. Consistent with its framework for analysis articulated in the Grand Prairie Gateway CPCN case, the Commission finds based on the record that the Project will add and create additional efficiencies in the electricity markets that will *promote* the development of an effectively competitive electricity market. In making this finding, the Commission notes in particular: (1) there is strong customer interest in obtaining transmission service on the Project if it is built, from viable, capable, experienced wind project developers who are active in project development in the western Kansas region; (2) economic analyses presented in this case show that electricity can be generated by wind farms in western Kansas and delivered by the Project to PJM and MISO at delivered prices that are competitive with or lower than projected market prices, therefore the Project is commercially and economically viable and feasible; (3) the Project will promote

competition by enabling some 4,000 MW of new, low cost generation to access the electricity markets in Illinois and other PJM and MISO states; (4) the Project and the new connected generation it will enable to access the market will reduce electricity prices and costs to serve load in the wholesale electricity markets in Illinois and other PJM and MISO states, which can be expected to result in reduced retail electricity prices in these markets; and (5) the Project will increase the supply of RECs available to serve the regional REC markets, including Illinois, which will put downward pressure on REC prices and will reduce costs for RPS compliance and for the acquisition of electric supply from renewable resources generally. Further, even without resolving the issues with respect to the assumptions used in the LCOE and PVRR studies and results provided by Mr. Berry, Mr. Zuraski and Dr. Proctor, the record shows that the electricity produced by western Kansas wind generation and delivered to the PJM and MISO grids by the Project will be cost competitive with electricity generated by other plausible new electric generation resources that could serve Illinois, such as additional wind generation in Illinois and new combined cycle gas generation in Illinois. This observation supports the conclusion that the Project is commercially and economically viable and feasible. Additionally, the Commission finds, as testified by Dr. McDermott, that because the competitive benefits of the Project will be reflected in reduced wholesale electricity and REC prices that will translate into reduced retail electricity prices and RPS compliance costs, that the benefits of the Project will be spread by the operation of the markets equitably to all customers.

3. Least Cost

a. Grain Belt Express' Position

Grain Belt Express states that the record shows that the Project satisfies the "least cost" provisos of the two alternative criteria of §8-406.1(f)(1), based on several different measures of least cost. Grain Belt Express states, first, that the objective of the Project is to provide a direct transmission connection by which the output of wind generators in western Kansas – the customers of the transmission line – can be delivered into the PJM and MISO markets. GBX reiterates that such a transmission link is necessary to provide adequate, reliable, and efficient service – in fact, any service – to these customers to deliver their output into PJM and MISO grids. GBX states that the Project is also necessary to enable entities in PJM and MISO seeking to purchase the low cost, clean electricity produced in western Kansas – who can also be customers of the Project – to have that electricity delivered to them. GBX contends that the Project is the least cost means of providing adequate, reliable, and efficient service to these customers. Specifically, the HVDC technology that Grain Belt Express will use is least cost compared to the other available transmission technology, AC. GBX states that for moving large amounts of electricity, particularly, electricity from variable generation resources, over long distances, an HVDC line can transfer significantly more power with lower line losses than can comparable AC lines. GBX Ex. 2.0 at 9. Additionally, GBX states that HVDC lines utilize narrow rights-of-way, fewer conductors, and smaller structures than comparable AC lines, thereby making more efficient use of transmission corridors and minimizing visual and land use impacts. *Id.*; Tr. 810-811; GBX IB at 82-83.

Grain Belt Express presented a comparison of the costs of a ±600 kV, 4,000 MW capacity, 780-mile HVDC line (*i.e.* the voltage, capacity and length of the Project's HVDC line) to five different potential AC alternatives that could move the same amount

of power the same distance. The analysis compared the capital costs and the annual losses costs of the alternatives. Capital costs included the costs for structures, conductors, insulators and hardware for the transmission lines. For the HVDC line, capital costs included three HVDC converters (as planned for the Grain Belt Express Project), including all equipment needed at each converter station. For the AC alternatives, capital costs included four substations (because AC lines typically require substations every 200 to 300 miles), including transformers, capacitors, shunt reactors and other substation equipment. GBX states that annual losses costs are the costs of power losses and represent the revenue lost per year due to the estimated power losses on the AC or HVDC line. GBX Ex. 2.0 at 12-14; GBX Ex. 2.1. GBX presented the results of this comparison (the first five rows in the table below are the five AC alternatives) as follows (GBX Ex. 2.0 at 13):

Solution to Transmit 4,000 MW, 780 miles (Transmission Line + Necessary Equipment)	**Cost ($ billion)**	**Annual Loss Costs ($ billion)**
Six, single circuit 345 kV transmission lines	10.02	1.90
Three, double circuit 345 kV transmission lines	7.74	1.90
Three, single circuit 500 kV transmission lines	7.84	1.38
One single circuit and one double circuit 500 kV transmission line	6.51	1.38
One single circuit 765 kV transmission line	3.45	1.50
One, ±600 kV HVDC bi-pole, multi-terminal system	2.26	0.89

Grain Belt Express states that the much lower annual losses costs for the HVDC alternative is consistent with the generally recognized engineering fact, as testified by GBX witness Dr. Galli, that HVDC lines can transmit power over long distances with lower losses than can AC lines. GBX states that, overall, the analysis shows that the HVDC project is the lowest cost alternative, as compared to potential AC alternatives, for delivering 4,000 MW of power over 780 miles. GBX Ex. 2.0 at 14; GBX IB at 83-84.

Grain Belt Express further states that, as seen in the above table, the four lower-voltage AC alternatives require between two and six circuits, and therefore would require more right-of-way than the HVDC alternative. GBX states that, taken with the fact that HVDC technology utilizes narrower rights-of-way, fewer conductors and smaller structures than AC alternatives, the HVDC project will have lesser impact, from a routing perspective, on the natural and built (human) environments than would AC alternatives for moving this amount of power over this distance. GBX states that due to its smaller overall footprint, the HVDC alternative is superior to the AC alternatives when evaluated using factors the Commission has previously employed for determining least cost in the context of selecting the preferred route for a new transmission line, such as environmental impacts, impacts on historical resources, land use impacts, numbers of affected landowners and other stakeholders, proximity to homes and other structures and to existing and planned development, community acceptance, and visual impacts, as well as with respect to cost of construction. GBX Ex. 2.0 at 13; Tr. 810-812; GBX IB at 84-85.

Second, Grain Belt Express states that, in terms of the route of the Project in Illinois, the Proposed Route is shorter and has a lower cost of construction than does

the Alternate Route. The length of the Proposed Route in Illinois is 206.3 miles while the length of the Alternate Route in Illinois is 207.5 miles. GBX Ex. 8.2 at 200, 204. Construction cost estimates for the transmission line for the Proposed Route and Alternate Route in Illinois (excluding the costs for the converter station in Clark County, which are common to both routes), prepared by Quanta Services, Inc., are $399,123,605 for the Proposed Route and $408,123,689 for the Alternate Route. GBX Ex. 9.0 at 20. GBX states that, more generally, as described in detail in Grain Belt Express's Illinois Route Selection Study (GBX Ex. 8.2), the Proposed Route was determined through a detailed and comprehensive process that considered numerous Routing Criteria, including length, costs, proximity to residences, schools and other structures and to developed areas generally, impacts to existing land uses (residential, agricultural, mining, recreational and other), impacts to environmentally sensitive areas, habitats, and historical and cultural resources, visual impacts, and ability to use existing or parallel existing corridors and infrastructure. GBX states that the Proposed Route is, therefore, the optimum route for the Project in Illinois. GBX IB at 85.

Third, Grain Belt Express states that the Project is least cost when compared to other alternatives for new generating capacity to access the electricity markets in Illinois and other PJM and MISO states. GBX states that this comparison may be considered relevant in determining least cost in the context of the alternative §8-406.1(f)(1) criterion that the proposed transmission line will promote the development of an effectively competitive electricity market, since the fact that the Project will allow 4,000 MW of new, low cost generation to access the Illinois electricity markets, thereby lowering electricity prices, enables the Project to promote the development of an effectively competitive electricity market that operates efficiently and is equitable to customers. GBX states that the studies performed by Mr. Berry shows that the output of new Kansas wind generation delivered by the Project has a lower LCOE than either a comparable amount new wind generation in Illinois or a comparable amount of new combined cycle gas generation in Illinois, and Kansas wind generation plus the Project has a lower PVRR than the other alternatives. GBX IB at 85-86.

Grain Belt Express states that in addition to its own analyses, Commission Staff witnesses concluded that the Project is least cost. Mr. Zuraski concluded that the Project will promote the development of an effectively competitive electricity market that operates efficiently, is equitable to all customers, and is the least-cost means of satisfying those objectives. ICC Staff Ex. 3.0 at 3. Mr. Rashid concluded, based on his knowledge of HVDC technology and the comparison of HVDC and AC alternatives presented by Grain Belt Express, that given the purpose of the Project to deliver wind energy from western Kansas to PJM and MISO, the Project meets the least cost standard. ICC Staff Ex. 1.0 at 10; GBX IB at 86.

Grain Belt Express Response to CCPO, IAA and LACI

Grain Belt Express states that the intervenors' arguments as to how the Commission should determine whether the Project satisfies the "least cost" provision of §8-406.1(f)(1) are in conflict. GBX points out that CCPO states that the Commission has a long-established test for least-cost, involving twelve criteria, which CCPO lists (CCPO IB at 12), while LACI and IAA contend that Grain Belt Express must demonstrate that the proposed Project (plus the connected wind generation) is least cost compared to other alternatives for providing new generation, both renewable and non-renewable. LACI IB §IV.B; IAA IB §IV.B.2; GBX RB at 35. GBX states that the

twelve criteria cited by CCPO are criteria that the Commission has historically used in transmission line CPCN cases for evaluating potential routes and determining the optimum route of those proposed by the applicant, Staff and intervenors (citing as examples *Ameren Transmission Company of Illinois*, Docket 12-0598 (Aug. 20, 2013); *Illinois Power Company d/b/a AmerenIP and Ameren Illinois Transmission Company*, Docket 06-0706, Order on Reopening (June 23, 2010)). Grain Belt Express states that it agrees with CCPO in that, in §8-406 and §8-406.1 transmission CPCN cases, the Commission has historically determined whether the "least cost" provision is satisfied by examining whether the proposed route of the transmission line, compared to alternative routes, is least cost, using the twelve criteria listed by CCPO. In these determinations, the Commission has not necessarily selected the route that results in the lowest construction cost for the transmission line, but rather the optimum route considering both construction costs and the other relevant routing criteria. GBX states, however, that in the Rock Island CPCN case, Docket 12-0560, the Commission did consider Present Value of Revenue Requirements ("PVRR") analyses comparing the PVRR of the Rock Island transmission line plus the Iowa wind generation that would connect to it, to the PVRR of new wind generation in Illinois sufficient to produce the same amount of electricity as the Iowa wind generation. (Order in Docket 12-0560 at 39-41, 77, 115-117.) GBX RB at 35-36.

Grain Belt Express states that in this case, it developed its Proposed Route in Illinois from numerous conceptual and potential routes that were evaluated, using a comprehensive set of Routing Criteria that encompassed the twelve criteria the Commission has used, as shown in the Illinois Route Selection Study (GBX Ex. 8.2), and described in §V.A and §V.B of GBX's initial brief. GBX states that the detailed discussion in these documents details how the Routing Criteria were applied to select potential route segments for further consideration and, ultimately, arrive at the Proposed Route (and an Alternate Route). GBX Ex. 8.2 at 200, 204; GBX Ex. 9.0 at 20; GBX RB at 36.

Also, GBX reiterates that because it plans to use HVDC technology for the Project, rather than the AC technology, it presented a comparison of the capital costs and losses costs for a 780-mile, ±600 kV, 4,000 MW capacity HVDC transmission line (*i.e.*, an HVDC transmission line like the Project) to the capital costs and losses costs of five different AC line configurations that could move the same amount of power over the same distance (780 miles). This analysis, which is described earlier in this Order, showed that the HVDC alternative has both considerably lower capital costs and considerably lower losses costs than any of the five AC transmission alternatives. GBX Ex. 2.0 at 12-14; GBX IB at 83-85. GBX also points out that Staff witness Mr. Rashid noted the advantages of HVDC technology over AC technology for transmission of large amounts of electricity over long distances, including lower power losses, lower construction cost, and narrower horizontal clearance for the transmission line, which means the DC transmission line can operate safely and reliably inside a narrower right of way. ICC Staff Ex. 1.0 at 8. Mr. Rashid reviewed the HVDC versus AC cost comparison presented by GBX and concluded that if the proposed project is to be solely dedicated to deliver wind energy from western Kansas to MISO and PJM (which it is), the analysis is valid and the proposed project meets the least cost standard. *Id.* at 10; GBX RB at 36-37.

Grain Belt Express responded to the arguments of CCPO, LACI, IAA that the

Project is not least cost because, they claim, intervenor witness Dr. Proctor showed that certain other alternatives, including new Illinois wind generation and new combined cycle natural gas-fueled generation, have a lower LCOE than new Kansas wind generation plus the Project. GBX states that Dr. Proctor's original analyses contained a calculation error which, when corrected, showed that the Kansas wind plus the Project alternative has the lowest LCOE (LACI Ex. 3.2 Rev. at 2; GBX Ex. 11.13 at 42-43); and that Dr. Proctor's analysis was premised on a number of flawed and unsupported assumptions which GBX witness Mr. Berry and Staff witness Mr. Zuraski found to be inappropriate and unpersuasive (GBX IB at 75-77; ICC Staff Ex. 5.0 at 1, 3). GBX RB at 37. Grain Belt Express' criticisms of Dr. Proctor's analysis and assumptions have been described earlier in this Order.

Further, Grain Belt Express states that Dr. McDermott testified that there is no requirement to evaluate every possible combination of power plants that might be able to access the Illinois market (although he also observed that Mr. Berry demonstrated that the Project is least cost using traditional LCOE and PVRR analyses, showing that the Project will deliver energy to Illinois at a lower cost than Illinois wind generation and combined cycle gas generation alternatives. GBX Ex. 4.2 at 5; GBX RB at 37-38. GBX states that Dr. McDermott also discussed policy reasons why the Commission should not apply the least cost provision by requiring Grain Belt Express to prove that Kansas wind generation plus the transmission line is lower cost than various other generation alternative, since such an approach could interfere with the development of the competitive market and would also require that a proposed project that has shown to be beneficial must demonstrated that it is "least cost" as compared to other projects that no one is proposing to build and the Commission does not have authority to order to be built. GBX Ex. 4.2 at 5-7; GBX RB at 38-39. Further, GBX states that Mr. Berry testified that some of the alternatives to which Dr. Proctor contended the Project should be compared for "least cost" purposes were alternatives no developer is actually proposing or would find technically and economically feasible, and thus are purely theoretical projects. GBX Ex. 11.13 at 50; GBX RB at 39. GBX states that in this regard, LACI's citation of *Illinois Power Co. v. ICC*, 111 Ill.2d 505, 490 N.E.2d 1255 (1986) (LACI IB at 32-33), is inapposite. GBX states that in *Illinois Power*, the Commission had before it two competing proposals by two existing utilities, both of which were parties in the case, to purchase Mt. Carmel Public Utility Co. The Commission was therefore able to evaluate and compare two specific alternatives presented and backed by proposed acquirers that the Commission regulated and that were before the Commission in the proceeding. In contrast, GBX states, Dr. Proctor's alternatives are hypothetical scenarios that no entity is proposing to implement and that the Commission would have no authority to compel. GBX RB at 40.

GBX also notes that Staff witness Mr. Zuraski, after considering Dr. Proctor's analysis, testified in rebuttal that "it is not critically important" to show that Kansas wind farms are able to produce energy at a lower cost than combined cycles. ICC Staff Ex. 5.0 at 4-5. He explained that wind generation and fuel-fired technologies play different roles, satisfy different requirements, and entail different risks, so there is likely to be continued interest in building both types of generation. *Id*. at 5. He also stated that "it is not absolutely necessary that Kansas wind farm projects be expected to produce energy at lower cost than Illinois wind farms." *Id.* He explained that "Even if the expected cost of Kansas wind farms (including the cost of the GBX project) exceeded the expected cost of Illinois wind farms, there would be value in the increased

geographical diversity by integrating the Kansas wind into the rest of the grid", which will render the collective wind resource more like a base load resources and less like a non-dispatchable resource. *Id*. at 5-6. He also observed that "to the extent to which, over time, fewer and fewer prime locations within Illinois remain available for wind farm development, building new wind farms in the more wind-rich areas of Kansas may become the next best alternative, even if they are not presently the best alternative." *Id.* at 6. Nonetheless, Mr. Zuraski testified that, based on the LCOE analysis he conducted, and without taking into account such factors as the value of geographic diversity provided by Kansas wind generation and the depletion of prime locations within Illinois, the LCOE analysis shows that the Kansas wind option is less expensive than the Illinois wind option in the base case, on average over 13,122 sensitivity cases analyzed, and in 73% of the 13,122 sensitivity cases. *Id.* GBX RB at 40-41.

Grain Belt Express reiterated that the LCOE and PVRR analyses prepared by Mr. Berry, and the LCOE modeling performed by Mr. Zuraski, showed that Kansas wind generation plus the Project has a lower LCOE and a lower PVRR than the alternatives of new Illinois wind generation or new combined cycle gas generation, in the base case and in the large majority of the over 13,000 sensitivity scenarios studied. GBX states that in contrast, the comparisons presented by Dr. Proctor utilized a number of flawed and unsupportable assumptions. Further, GBX states that Dr. Proctor's numerical results that are depicted in the tables on page 33 of IAA's Initial Brief and pages 26-27 of LACI's Initial Brief incorporate these flawed and unsupportable assumptions, have not been corrected, and should not be relied on by the Commission. GBX RB at 41.

Grain Belt Express responded to LACI's explanations of Dr. Proctor's assumptions in LACI's initial brief. LACI stated that Dr. Proctor used inflation rates from the Energy Information Administration ("EIA") for natural gas prices for 2012-2040. LACI IB at 24. GBX responded that, while using EIA's forecast for the price of natural gas in the study may be appropriate, what LACI fails to state is that Dr. Proctor used the imputed inflation rate derived from EIA's natural gas price forecast as the inflation rate for all costs in his analyses. GBX states that a low inflation rate for natural gas may be consistent with market expectations, but as applied to other costs, the imputed natural gas inflation rates Dr. Proctor used are too low and are well below historical inflation rates and consensus economic forecasts. GBX Ex. 11.13 at 50-52; GBX RB at 41-42.

Grain Belt Express noted that LACI also states that Dr. Proctor "utilized a $1,750/kW installed cost for new wind generation for both Kansas and Illinois, based on the 2013 Wind Technologies Market Report [published by DOE], noting the significant effect of larger turbine sizes on lowering costs, and determining that recent lower actual costs in the interior region were likely due to larger turbine sizes." LACI IB at 24-25. GBX states that, in fact, Dr. Proctor simply misread the 2013 Wind Technologies Market Report, erroneously reading it as reporting the same wind farm capital costs for the region of the U.S. that includes Kansas and the region that includes Illinois. GBX states that the DOE Report showed capital costs of $1,755 per kw of capacity for new wind plants installed in 2012-2013 in the region that includes Kansas, and $2,033 per kw of capacity for new wind plants installed in the region that includes Illinois. GBX Ex, 11.13 at 52-53. GBX states that Mr. Berry, based on his experience in developing wind projects in both Kansas and Illinois, explained in detail the factors that result in lower capacity costs per kw of capacity for new wind farms in Kansas than in Illinois. *Id.* at 52; GBX RB at 42.

Grain Belt Express states that LACI states that Dr. Proctor used a 52% capacity factor for new Kansas wind generation, rather than the 55% capacity factor used in Grain Belt Express' analyses, because Grain Belt Express had based its Kansas wind capacity factor assumption on "impending improvements in turbine design, technology and size." LACI IB at 25. GBX states that, in fact, Mr. Berry developed the 55% capacity factor for new Kansas wind farms by applying actual wind speed data taken from meteorological towers located in the vicinity of the Project's converter station site in western Kansas, to the power curves for currently available wind turbines of two leading manufacturers. GBX Ex. 11.0 at 11; GBX Ex. 11.13 at 54-55. Grain Belt Express states that while it does anticipate further improvements in turbine technology will occur, increasing capacity factors of new wind plants, between now and the Project's expected in-service date of 2019 or 2020, the 55% capacity factor for Kansas wind plants is based on currently available turbine technology. GBX RB at 42-43.

Finally, Grain Belt Express notes that LACI stated that Dr. Proctor increased the capital costs for the Grain Belt Express Project by 20% and that "[h]e based this in part on the Southwest Power Pool's ["SPP"] finding that actual transmission project costs were 20% to 50% higher than preliminary cost estimates." LACI IB at 25. GBX states that there has been no such SPP "finding." GBX states that Mr. Berry explained, in response to a data request to LACI for Dr. Proctor's SPP source documents, that:

> Dr. Proctor produced two documents, neither of which supported the claims in his testimony. The first was a trade press article from *RTO Insider* that reported anecdotal evidence about cost overruns on SPP transmission projects approved as part of the 2015 regional transmission plan. The only specific projects discussed in the article are line rebuilds, lower voltage upgrades, and voltage conversion projects. None of these have relevance to the construction of a long-distance HVDC line. The second document was an SPP report on transmission projects, which did not contain any research on historical transmission cost overruns or any conclusion that a 20% overrun was typical or to be expected. Dr. Proctor's claim that his increase to the Project cost is based on SPP research is misleading and must be discarded. (GBX Ex. 11.13 at 55; footnote omitted.) (GBX RB at 43.)

Additionally, Grain Belt Express stated that its capital cost estimate for the Project already includes adders for contingency in specific components of the estimate to account for potential capital cost increases due to factors such as inflation in materials costs, increases in labor rates, or weather delays. Moreover, with a reasonably well-defined route identified for the Project, the volumes of commodities and number of structures in the estimate, and the amount of labor needed to install them, are unlikely to increase materially. GBX Ex. 11.13 at 55-56. GBX points out that, nonetheless, Mr. Berry included in his PVRR analyses scenarios with a 20% capital cost increase for the Project. GBX Ex.11.8 at 1. In these scenarios, Kansas wind generation plus the Project still had a lower PVRR (using a 5% discount rate) than new Illinois wind generation in 95% of scenarios and a lower PVRR (using a 5% discount rate) than new combined cycle gas generation in 89% of scenarios. GBX Ex. 11.16 at 1; GBX RB at 43-44.

Grain Belt Express states that after reviewing Dr. Proctor's direct testimony describing the reasons for the above-described assumptions and other assumptions used by Dr. Proctor, Staff witness Mr. Zuraski testified that he was not persuaded that

any of Dr. Proctor's assumptions should be adopted, except for the update to incorporate the recent change in Kansas property tax law applicable to wind farms. ICC Staff Ex. 5.0 at 3; GBX RB at 44.

Grain Belt Express also responded to CCPO's and IAA's argument that neither Infinity witness Mr. Langley nor Staff witness Mr. Zuraski performed an independent study of the assumptions, inputs and analysis of costs of the various alternatives considered by Grain Belt Express. CCPO IB at 11; IAA IB at 31. GBX states that with respect to Mr. Langley, he was not attempting to perform or present a least-cost analysis of alternatives in the manner of Mr. Berry, Dr. Proctor or Mr. Zuraski. Rather, Mr. Langley, whose company is developing over 2,000 MW of new wind farms in the area of western Kansas that will be served by the Grain Belt Express Project, testified that without the Project, there is no reasonable or feasible alternative for transporting the electricity generated by western Kansas wind farms to load and population centers in PJM and MISO, and therefore, without the Project, the new Kansas wind farms likely will not be built. Infinity Ex. 1 at 4-7; GBX RB at 45. With respect to Commission Staff witness Zuraski, GBX states that CCPO's and IAA's characterization is inaccurate. Mr. Zuraski reviewed the LCOE and PVRR analyses submitted by Grain Belt Express, reviewed and critiqued Dr. Proctor's LCOE model and assumptions, and conducted his own analyses using his own model. ICC Staff Ex. 3.0 and 5.0; GBX RB at 45.

Grain Belt Express' Response to MEZ

Grain Belt Express stated that MEZ's argument on least cost is based on an unduly narrow and limited view of the purpose of the Project. While energy produced by Kansas wind generators and delivered by the Project to PJM and MISO (and the RECs that are created by that generation) can and will be used to satisfy the Illinois RPS (and the RPS of other PJM and MISO states), the new wind generation enabled by the Project will also help to meet the strong and growing demand for electricity from renewable resources over and above mandatory RPS requirements; will help to meet the demand for electricity generally, including replacing the electricity previously provided by fossil-fueled generators that are being retired or whose use is being reduced; will reduce the volatility of electricity prices that results from volatility in fuel prices; will reduce emissions in the Eastern Interconnection; will increase competition in the wholesale electricity markets in PJM and MISO by allowing 4,000 MW of new, low-cost generation to access those markets; and (perhaps most importantly) will reduce wholesale electricity prices and the cost to serve retail electric load in Illinois and other PJM and MISO states. GBX RB at 46-47.

Grain Belt Express summarized the remainder of MEZ's argument on the Least Cost requirement as follows: Grain Belt Express is not a merchant transmission developer as defined by FERC because GBX has not assumed the full market risk of the Project; therefore, GBX is not entitled to negotiated rate authority; also, therefore, GBX is required to participate in the RTO planning processes; and finally, the Commission lacks jurisdiction to accept the proposed cost allocation condition (which the Commission adopted in the Rock Island CPCN case, Docket 12-0560), due to FERC's authority over interstate transmission. MEZ IB at 12-21. GBX states that MEZ's argument is premised entirely on the contention that Grain Belt Express has a "right" to obtain recovery of its costs through a RTO regional cost allocation process; however, Grain Belt Express has no such "right." GBX states that there is no RTO process by which a merchant, interstate transmission project like the Project can

recover its costs from the general body of retail ratepayers through an RTO transmission tariff (this is what is commonly referred to as "regional cost allocation"). Tr. 208, 222. GBX states that MEZ repeatedly asserts that Grain Belt Express has a "right" to recover its costs through RTO regional cost allocation, but MEZ does not identify the RTO mechanism or process through which Grain Belt Express could recover its costs through RTO regional cost allocation. GBX states that even for projects that are eligible for cost allocation, there is no "right" to cost recovery; rather, the RTO has to determine that recovery of the cost of such a project through the RTO transmission tariff is appropriate. GBX RB at 47.

Grain Belt Express states that, assuming there were such a process available, it has agreed to the cost allocation condition, which will require it to obtain this Commission's permission, in a separate proceeding initiated by Grain Belt Express, before recovering any Project costs from Illinois retail ratepayers through PJM or MISO regional cost allocation. GBX RB at 47-48

Grain Belt Express has clearly and categorically stated in this case, through the testimony of its President, that Grain Belt Express and its parent company, Clean Line, do not intend or plan to request cost recovery for the Project through RTO or any other regional cost allocation processes. GBX Ex. 1.0 at 14; Tr. 206, 207, 217-218; *see also* GBX Ex. 11.0 at 69-70. Grain Belt Express states that it has not proposed any circumstances in which it would seek to recover the costs of the Project through RTO or other regional cost allocation processes (assuming there were such a process), and that all of the circumstances described by MEZ in which Grain Belt Express could seek cost allocation were based on hypothetical scenarios posed by its counsel in cross-examination, not on proposals by Grain Belt Express. GBX RB at 48.

With respect to MEZ's contention that Grain Belt Express is not a merchant transmission developer as defined by FERC and is not entitled to negotiated rate authority, Grain Belt Express states that it has been recognized by FERC as a merchant transmission developer and has been granted negotiated rate authority by FERC. *Grain Belt Express Clean Line LLC,* 147 FERC ¶61,098 (2014). Further, Grain Belt Express' interconnection request at PJM is being process through PJM's merchant transmission interconnection process. GBX Ex. 2.0 at 28-31. GBX states that for the reasons described immediately above, MEZ's assertion that "The entire record in this docket shows that GBX's 2013 representation to FERC [that it is assuming all market risk associated with the development and construction of the Project] is flatly untrue now" (MEZ IB at 18) is baseless. Grain Belt Express states that since it continues to be a merchant transmission provider, it is not obligated to participate in the RTO regional transmission planning processes (and, as previously noted, there is no RTO process in which it can participate. GBX Ex. 11.0 at 67; Tr. 280.). GBX RB at 48-49.

Grain Belt Express states that MEZ's argument that the Commission lacks jurisdiction to accept the cost allocation condition (MEZ IB at 19-20) is also erroneous. GBX states that the cases MEZ cites in support of this argument all involved the failure or refusal of a state regulatory body to include, in a utility's retail rates, costs that were based on rates established by FERC for services that the utility purchased, which is not the situation presented by the cost allocation condition. GBX states that under the cost allocation condition, it would be seeking this Commission's permission to recover some or all of its costs through an RTO cost allocation process (should such a process for doing so be created). The cost allocation condition will be a requirement or condition of

Grain Belt Express' CPCN, issued by this Commission authorizing Grain Belt Express to construct the Project in Illinois. GBX RB at 49-50. GBX states that the extent of the FERC's jurisdiction over interstate transmission does not extend to permission to build, site and operate transmission lines in a state; that authority remains with the states; as the FERC stated in its Order No. 1000:

> We acknowledge that there is longstanding state authority over certain matters that are relevant to transmission planning and expansion, such as matters relevant to siting, permitting, and construction. However, nothing in this Final Rule involves an exercise in siting, permitting and construction authority . . . . In establishing these reforms, the Commission is simply requiring that certain processes be instituted. This in no way involves an exercise of authority over those specific substantive matters traditionally reserved to the states, including integrated resource planning or authority over such transmission facilities. (*Transmission Planning and Cost Allocation by Transmission Owning and Operating Public Utilities*, Order No. 1000, Docket No. RM10-23-000 (July 21, 2011), at P107.) (GBX RB at 50.)

Grain Belt Express states that the Commission, if necessary, can enforce Grain Belt Express' compliance (or penalize its non-compliance) with the cost allocation condition by initiating proceedings pursuant to §10-113 of the Act (220 ILCS 5/10-113) to rescind the CPCN, or by imposing other sanctions or penalties on Grain Belt Express, as permitted by the Act, for violation of a Commission order. 220 ILCS 5/4-202, 4-203. GBX RB at 50.

Grain Belt Express explained that the underlying concern MEZ is addressing in her argument at pages 15-21 is the possibility that (1) Grain Belt Express will obtain a CPCN to construct the Project on the basis that it is a merchant transmission project and will not recover its costs from retail ratepayers, without either an RTO or this Commission having determined that the Project is needed for reliability or economically beneficial and that the benefits it provides exceed its costs to customers; but then (2) Grain Belt Express is subsequently allowed to recover its costs through an RTO cost allocation process, again without an RTO or this Commission having determined that the benefits of the Project outweigh its costs to customers. GBX states that this scenario really can't happen, for two reasons. First, if Grain Belt Express were to initiate a new proceeding at the Commission to seek permission to recover costs from Illinois retail ratepayers through RTO regional cost allocation, as required by the cost allocation condition, the Commission will determine if the benefits the Project provides for Illinois customers outweigh the costs Grain Belt Express seeks to recover from the customers. GBX Ex. 1.0 at 15 ("Under this requirement, should Grain Belt Express decide to seek cost recovery through MISO and/or PJM, Grain Belt Express would have to return to the Commission in a future proceeding, and prove that the Project's benefits outweigh the costs to ratepayers"); GBX Ex. 11.0 at 69. Second, at the RTO level, before the RTO approved including costs of the Project in the costs recovered through the RTO transmission tariff, it would also make a determination that the transmission line is needed for reliability or economic purposes and that the benefits of the transmission line exceed its costs to customers – which is what the RTOs do in their regional planning processes in any event. Thus, GBX states, there would in fact need to be two separate determinations by two separate authorities that the benefits of the Project exceed the costs that are to be recovered from Illinois ratepayers through the

RTO transmission tariff, before GBX would be allowed to recovery any costs through RTO regional cost allocation. GBX RB at 50-51.

b.-x. [Other Parties' Positions]

c. Commission Analysis and Conclusion

Based on its consideration of the Application and the evidentiary record, and the arguments of the parties, the Commission finds, for several reasons, that the Grain Belt Express Project satisfies the "least cost" provisions of the two alternative criteria of §8-406.1(f)(1). First, the Commission finds, based on Grain Belt Express' selection of HVDC technology, the recognized advantages (as documented in the record) of HVDC technology for moving large amounts of power (particularly power from variable generation resources) over long distances, and Dr. Galli's comparison of the capital costs and losses costs of the HVDC project versus several AC alternatives, that the Project as proposed is the least cost option for moving a substantial amount of electricity from wind generation facilities in the wind-rich area of western Kansas to the PJM and MISO markets. This conclusion is supported by Staff witness Mr. Rashid's testimony.

Second, the Commission finds that Grain Belt Express has chosen the optimum route for the Project in Illinois. This finding is based in part on the Commission's review of the evidence on the development and identification of the Proposed Route and the findings approving the Proposed Route in Illinois, in §V.A and §V.B of this Order, below. The Commission agrees with CCPO, Grain Belt Express and others that the Commission has historically evaluated the "least cost" requirement in transmission line CPCN cases by examining whether the applicant has chosen the optimum route for the transmission line. In such evaluations, the Commission has not limited its analysis specifically to the construction cost of the proposed transmission line, but rather has examined numerous factors that bear on the selection of a route that, compared to alternatives, is both low in cost to the owner and minimizes impacts to the natural and human environments through which it passes (*e.g.*, distance from residences and other structures; impacts on environmentally sensitive areas and habitats; impacts on current uses such as agriculture and mining; and impacts to historical and cultural resources). The Commission finds that Grain Belt Express has taken these types of factors into account in developing the Proposed Route in Illinois, as documented in its Illinois Route Selection Study, GBX Exhibit 8.2.

Third, the record shows that the Project is least cost when compared to other feasible alternatives for supplying comparable amounts of electricity to the Illinois electricity markets. Although the Commission does not necessarily disagree with Dr. McDermott's rebuttal testimony that the Commission should not be evaluating potentially beneficial projects like the Projects against hypothetical alternatives that are not actually being proposed, the Commission considers such comparisons useful in the context of evaluating a merchant transmission project like the Project, to help to validate that the proposed project is commercially and economically viable. If a proposed merchant project were shown to be significantly more costly than reasonable potential alternative projects, this would call into question whether the proposed project is economically and competitively feasible. On the other hand, as testified by Mr. Zuraski, if LCOE or PVRR analyses shows that a proposed project is lower cost than, or even just cost-competitive with, other reasonably plausible and feasible alternatives, this

provides a good indication that the proposed project will be commercially successful and actually provide benefits to the markets and to consumers. In this case, the analyses provided by Mr. Berry and Mr. Zuraski show that the Project has lower LCOE and PVRR than the reasonably likely alternatives of new wind generation in Illinois and new combined cycle gas generation in Illinois. In this regard, the Commission has reviewed the evidence concerning the assumptions used by Dr. Proctor in his LCOE analyses, and finds, as did Commission Staff witness Mr. Zuraski, that Dr. Proctor's assumptions regarding the capital costs and capacity factors of new Kansas wind generation, the capital costs of the Project, the inflation rates to be applied to various costs, and the "capacity adder" for new wind generation, to be unpersuasive. The Commission also finds that Dr. Proctor's additional comparison of to western MISO wind generation to be incomplete due to the failure to fully incorporate necessary transmission upgrades and interconnection costs.

The Commission also rejects MEZ's argument that Grain Belt Express is not a merchant transmission provider and that Grain Belt Express has a "right" to RTO cost allocation. First, Grain Belt Express has consistently and categorically stated that it will not seek to recover its costs from ratepayers through RTO regional cost allocation processes, and it has done nothing to indicate that it and its investors will not bear full responsibility for the costs and financial risks of the Project. Second, no process has been identified in this case by which Grain Belt Express could obtain recovery of its costs through RTO regional cost allocation. Third, Grain Belt Express does not have a "right" to recover its costs through RTO regional cost allocation. Rather, it would be necessary (assuming that there were an RTO cost allocation process in which Grain Belt Express could participate at all) for Grain Belt Express both to obtain permission from this Commission to utilize cost allocation to recover costs from Illinois retail electricity ratepayers, and to demonstrate to the applicable RTO or RTOs that the RTO should allow Grain Belt Express to recover its costs from all customers through the RTO's transmission tariff. The Commission also rejects MEZ's argument that the Commission lacks jurisdiction to adopt or enforce the cost allocation condition. The Commission acknowledges FERC's authority over interstate transmission rates; however, this Commission, not FERC, retains jurisdiction over the certification and construction of transmission facilities in Illinois, and the cost allocation condition is being imposed as a condition or requirement to the issuance of a CPCN to Grain Belt Express to construct the Project, which is plainly within the scope of this Commission's jurisdiction and authority.

In summary, based on its conclusions in §IV.B.1, 2 and 3 of this Order, the Commission finds that the Grain Belt Express Project (1) is necessary to provide adequate, reliable, and efficient service to Grain Belt Express' customers and is the least-cost means of satisfying the service needs of those customers, and (2) will promote the development of an effectively competitive electricity market that operates efficiently, is equitable to all customers, and is the least cost means of satisfying those objectives.

C. Section 8-406.1(f)(2) – Capability to Efficiently Manage and Supervise the Construction Process

1. Grain Belt Express' Position

Grain Belt Express states that the record shows it is capable of efficiently

managing and supervising the construction process for the Project and has taken sufficient action to ensure adequate and efficient construction and supervision thereof; therefore, the Commission should find that Grain Belt Express has demonstrated that it meets this criterion. GBX IB at 86-87.

Grain Belt Express explains that it is capable of efficiently managing and supervising the construction process for the Project because (i) Clean Line and Grain Belt Express have a plan in place to establish an effective construction management organization and are implementing that plan; (ii) Grain Belt Express will engage experienced contractors to carry out the tasks associated with constructing the Project and placing it into operation; (iii) Grain Belt Express will enter into contracts with its contractors that will provide for effective project controls and oversight mechanisms from the project owner's perspective; and (iv) members of Clean Line's management team and one of Clean Line's principal investors, National Grid, have extensive experience in developing construction management organizations and overseeing the construction and completion of large projects in the electric utility industry. GBX Ex. 1.0 at 36-37; GBX IB at 87.

Grain Belt Express explains that Clean Line and Grain Belt Express have designed an effective construction management organization for the Project. The Construction Management Organization structure is shown on GBX Exhibit 1.3. GBX IB at 87. Grain Belt Express states that it has defined the responsibilities of each position in the Construction Management Organization and the qualifications for each position. Grain Belt Express described the segments and positions in the Construction Management Organization and the responsibilities of each position. GBX states that the three positions at the top of the organization chart – EVP of Transmission and Technical Services, EVP and General Counsel, and Director of Development - will report to the President and Chief Executive Officer and will have primary responsibility for the development, design, right-of-way acquisition and construction of the Project. GBX Ex. 1.0 at 37-42; GBX IB at 88-89.

Grain Belt Express states that an additional, important component of Grain Belt Express' Construction Management Organization is the Owner's Engineer ("OE"), whose expertise and experience will supplement and support Grain Belt Express's management of construction of the Project. An OE is a third-party entity, experienced in the engineering and construction of large-scale infrastructure projects, which the owner retains to assist the owner in project management activities and overseeing the activities of the other project contractors, including the EPC contractors, thereby supplementing the experience and expertise of the owner's internal team. GBX Ex. 1.0 at 44; GBX IB at 89-90. GBX states that POWER Engineers, Inc. ("POWER") has been selected as the OE for the Grain Belt Express Project in Illinois. During the development phase of the Project, POWER is assisting Grain Belt Express in performing engineering and design work for the Project. Grain Belt Express explains that, to date, POWER has developed preliminary design criteria and structure designs and has provided engineering support for the route development process. GBX Ex. 1.0 at 44; GBX IB at 90.

Grain Belt Express states that it has filled 15 of the 35 position in the Construction Management Organization. GBX Ex. 1.3; Errata to GBX Ex. 1.3 at 1; GBX IB at 90. Grain Belt Express explains it has not yet filled all of the positions in its Construction Management Organization because the Project has not reached

appropriate milestones to warrant filling those positions at this time. GBX Ex. 1.0 at 42; GBX IB at 90. However, GBX states it has a plan to fill all of the positions and is confident that it will do so, for the following reasons: (i) the Clean Line management team has a very extensive network in the electric power industry and has strong relationships with industry professionals and search agencies that can assist with finding qualified personnel to fill these positions; (ii) National Grid, one of Clean Line's owners, as an experienced developer, construction manager, owner and operator of transmission lines, including HVDC facilities, has extensive contacts in the utility construction industry and has and will continue to make its resources available to assist Clean Line in identifying additional candidates to fill positions in the Construction Management Organization; and (iii) Clean Line regularly receives resumes from persons with strong construction backgrounds. Grain Belt Express plans to have the majority of the positions in the Construction Management Organization filled by no later than three months prior to the date of commencement of major construction activities. GBX Ex. 1.0 at 42-43; GBX IB at 90-91.

Grain Belt Express states it will retain two Engineering, Procurement and Construction ("EPC") contractors for the Project, one for the construction of the transmission line and the other for the construction and installation of the three converter stations. GBX Ex. 1.0 at 44; GBX IB at 91. For the development phase of the Project, Grain Belt Express has engaged Quanta, a leading EPC contractor, to provide construction management services relating to the transmission line portion of the Project. GBX states it selected Quanta after conducting an extensive interview and selection process, which included reviewing proposals from and/or interviewing several of the leading power construction companies in the U.S. GBX Ex. 1.0 at 45; GBX IB at 91. Grain Belt Express notes that it expects to negotiate and enter into an agreement for Quanta to serve as the transmission line EPC constructor for the construction phase of the Project. GBX Ex. 1.0 at 46; GBX IB at 91.

Grain Belt Express states that Quanta is the largest specializing contractor in North America serving the electric, gas, and pipeline sector. GBX Ex. 9.0 at 4; GBX IB at 91. In 2014, Quanta had total revenues of more than $7.8 billion. Quanta's work force includes approximately 25,000 employees working from more than 250 offices throughout North America, as well as in Europe, Australia and South Africa. GBX Ex. 9.0 at 4; GBX IB at 91. Quanta's transmission projects have included some of the largest and most significant high voltage and extra-high voltage ("EHV") (345-765 kV) transmission lines ever built in North America. Quanta has completed more than 6,360 miles of EHV transmission projects in the last ten years, with more than 2,500 miles completed since 2013. GBX Ex. 9.0 at 7-8; GBX IB at 91-92. Further, Quanta has significant experience with constructing electric transmission lines across agricultural lands, wooded lands, and other rural properties. GBX Ex. 9.0 at 8; GBX IB at 92. Grain Belt Express witness Mr. Lee Jones, the Director of Program Management at Quanta Services, Inc., provided extensive testimony regarding Quanta's experience, including its experience in constructing lengthy linear infrastructure projects. GBX Ex. 9.0 at 8-9; GBX Ex. 9.3; GBX IB at 92.

Grain Belt Express explains that the EPC contractor for the HVDC converter stations will be one of three global leaders in HVDC equipment manufacturing, each of which has decades of experience successfully designing, manufacturing, and commissioning large-scale HVDC projects. GBX Ex. 1.0 at 50; GBX IB at 92. GBX

states that the EPC contractor for the converter stations will partner with a construction management firm to create a partnership or consortium to perform site preparation, building erection, and equipment installation for the converter stations. GBX Ex. 1.0 at 50; GBX IB at 92. GBX states that the experience required of this contractor will include significant, successful experience installing high voltage substation equipment in North America, with all requisite knowledge of installing equipment in accordance with the requirements of the National Electrical Safety Code, NERC, and good utility practice. GBX Ex. 1.0 at 50; GBX IB at 92.

Grain Belt Express states that it will require that its EPC contracts with Quanta and the converter station EPC contractor include provisions that provide Grain Belt Express with effective project controls to best ensure that the Project is completed on time and on budget. GBX Ex. 1.0 at 48-49, 50-51; GBX IB at 92-93. Grain Belt Express explains that its agreement with Quanta for the work Quanta is performing during the development phase of the Project specifies that the following provisions will be included in Quanta's EPC contract: (i) Quanta will provide a fixed, lump-sum contract price for the full transmission line EPC services for the Project. GBX Ex.1.0 at 48; GBX IB at 93. (ii) Quanta will guarantee the completion date for the Project, and if Quanta fails to achieve substantial completion of the line by the specified date or if the line does not complete testing and commissioning to the satisfaction of Grain Belt Express and according to good utility practices, Quanta will pay Grain Belt Express liquidated damages to compensate Clean Line for its costs. GBX Ex.1.0 at 48; GBX IB at 93. (iii) Quanta will commit to keep key personnel assigned to the Project. GBX Ex.1.0 at 48; GBX IB at 93. (iv) Quanta is required to provide reasonable credit support to cover all of its obligations under the EPC contract. GBX Ex.1.0 at 48; GBX IB at 93. Grain Belt Express states that it will require similar provisions in the converter station EPC contract. GBX Ex. 1.0 at 50-51; GBX IB at 93. Additionally, both of the EPC contractors will be required to provide regular reports to Grain Belt Express detailing progress of work, any safety violations, schedule and cost impacts, and other information needed to effectively monitor their performance. GBX Ex. 1.0 at 48-50; GBX IB at 93.

Grain Belt Express states that members of Clean Line's management team, as well as National Grid, a principal investor in Clean Line, have considerable experience with organizing construction management teams and overseeing the successful development and construction of large electric industry projects. GBX Ex. 1.0 at 52-54; GBX Ex. 10.0 at 4; GBX IB at 93. GBX states that, for example, Jayshree Desai, Clean Line's Chief Operating Officer, and Michael Skelly, President and Chief Executive Officer of Clean Line and President of Grain Belt Express, were responsible for the development and construction of over 2,000 MW of wind farms, and over 180 miles of transmission lines, at Horizon Wind Energy. GBX Ex. 1.0 at 52; GBX IB at 93. Grain Belt Express states that Ms. Desai and Mr. Skelly built Horizon Wind Energy (now EDP Renewables North America LLC) into the third largest wind power company in the U.S., and in doing so, they were responsible for hiring personnel to build the company's construction, procurement, operations and asset management departments. GBX contends this experience is directly relevant to the development of Grain Belt Express into an organization that will successfully manage construction of the Project. GBX Ex. 1.0 at 53; GBX IB at 93-94. GBX also states that at the height of Horizon Wind Energy's construction activities, Mr. Skelly and Ms. Desai managed capital expenditures of over

$3 million per day and managed over $2 billion worth of contracts with suppliers, manufacturers and balance of plant contractors. GBX Ex. 1.0 at 53; GBX IB at 94.

Grain Belt Express notes that Dr. Galli, EVP of Transmission and Technical Services for Clean Line, while Director of Transmission Development at NextEra Energy Resources, was responsible for routing, siting and engineering for approximately 330 miles of new transmission lines, was responsible for vetting and awarding contracts to contractors, and participated in planning and project management for a 229-mile transmission line. GBX Ex. 1.4 at 1; GBX IB at 94. GBX states that additional information about the electric transmission and generation projects that members of Clean Line's management team have been involved in, and their relevant experience, is provided in Grain Belt Express Exhibits 1.2 and 1.4. GBX IB at 94.

Grain Belt Express states that National Grid plc is one of the largest investor-owned utility companies and largest owners and operators of electric transmission facilities in the world. GBX Ex. 1.0 at 11, 54; GBX Ex. 10.0 at 7; GBX IB at 94. GBX explains that its capability to effectively manage and supervise the construction of the Project and to successfully execute the planning, construction and operation of the Project is supported by its ability to draw on National Grid's expertise. GBX Ex. 1.0 at 34-35, 54; GBX IB at 94. GBX states that National Grid USA has committed to making its engineering, procurement, licensing, construction and project management skills and resources available to Clean Line and Grain Belt Express. GBX Ex. 1.0 at 34; GBX Ex. 10.0 at 12; GBX IB at 94. Additionally, members of the management of Clean Line's most recent new investor, Bluescape Resources, have experience in building transmission lines. Tr. 356, 641, 647; GBX IB at 94.

Grain Belt Express states that this Commission, as well as several other state commissions and organizations, have found that Clean Line project companies have the necessary managerial and technical competence to construct their transmission line projects. GBX IB at 95. Grain Belt Express explains that the evidence it has presented in this proceeding to demonstrate that it is capable of efficiently managing and supervising the construction of the Project is essentially the same evidence that its sister company Rock Island presented on this topic in Docket 12-0560. Order in Docket 12-0560 at 120-125 (summarizing Rock Island's evidence on this topic). GBX IB at 95. Grain Belt Express points out that in that case, the Commission specifically found that Rock Island "made the required showing" on this criterion, and found that Rock Island was capable of efficiently managing and supervising the construction process. Order in Docket 12-0560 at 130-131 (citing Rock Island's development of a construction management organization, the experience of members of its management team in overseeing the construction of large electric industry projects, its retention of contractors with relevant experience and expertise, and the experience of National Grid and its ability to provide support to Rock Island) and 222 (Finding (3)). GBX IB at 95-96.

Additionally, Grain Belt Express notes that several other state commissions have found that Grain Belt Express or its sister project companies (in addition to Rock Island in Docket 12-0560) have the necessary managerial and technical competence to construct their transmission line projects: (1) The Oklahoma Corporation Commission, in granting Plains and Eastern Clean Line LLC public utility status in Oklahoma, affirmed the ALJ's recommendation that Plains and Eastern possesses the financial, managerial

and technical experience to build, own and operate transmission in Oklahoma.[6] GBX Ex. 1.0 at 55; GBX IB at 96. (2) The Kansas Corporation Commission, in granting a certificate to Grain Belt Express, found that Clean Line has the managerial, financial and technical experience to construct, operate and maintain the line.[7] GBX Ex. 1.0 at 55; GBX IB at 96. (3) The Indiana Utility Regulatory Commission, in granting Grain Belt Express a certificate to operate as a transmission-only public utility in the State of Indiana, found that Grain Belt Express has the necessary technical, managerial and financial capability to construct, own and operate its project.[8] GBX Ex. 1.0 at 55-56. GBX IB at 96. Grain Belt Express also states that PJM has concluded that Clean Line and its subsidiary operating companies, including Grain Belt Express, satisfy the pre-qualification requirements for Designated Entity status under the PJM Amended and Restated Operating Agreement. GBX Ex. 1.0 at 54; GBX IB at 96. GBX states that PJM evaluates companies for prequalification based on their ability to engineer, develop, construct, operate and maintain a generic transmission facility within PJM; other companies that PJM has reviewed and prequalified for Designated Entity status include American Electric Power Company, Dayton Power and Light Company, Duke Energy, Exelon, First Energy Corporation, LS Power Group, Pepco Holdings, Inc., PPL Electric Utilities Corporation, Public Service Electric and Gas Company, and Virginia Electric and Power Company. GBX Ex. 1.0 at 54. GBX IB at 96-97.

Grain Belt Express concludes that for all of these reasons, the Commission can and should find that Grain Belt Express is capable of efficiently managing and supervising the construction process for the Project and has taken sufficient action to ensure adequate and efficient construction and supervision thereof. GBX IB at 97.

Grain Belt Express' Responses to Staff and Intervenors

Grain Belt Express responded to the arguments of IAA and Staff that Grain Belt Express may not be able to efficiently manage and supervise the construction of the Project because neither Grain Belt Express, nor its parent company, Clean Line, as individual entities, has ever built a transmission line. IAA IB at 35; Staff IB at 20; GBX RB at 52. CCPO also asserted that Grain Belt Express is a "new company that has never constructed any type of transmission line" and that the Commission has no track record to rely upon as to Grain Belt Express's ability to efficiently manage and supervise the construction of the Project. CCPO IB at 12; GBX RB at 52. GBX contends that, rather than simply basing its determination under this statutory criterion on the fact that neither Grain Belt Express nor Clean Line, as entities, has ever constructed a transmission line, the Commission should look at the factors bearing on construction management capability that Grain Belt Express has presented, including the construction management organization that has been designed, the qualifications of the

[6] Order No. 590530, Cause No. PUD 201000075, *In the Matter of the Application of Plains and Eastern Clean Line LLC, to Conduct Business as an Electric Utility in the State of Oklahoma* (Order dated October 28, 2011), Exhibit A at 2.

[7] Order Approving Stipulation & Agreement And Granting Certificate, Docket No. 11-GBEE-624-COC, *In the Matter of the Application of Grain Belt Express Clean Line LLC for a Limited Certificate of Public Convenience to Transact the Business of a Public Utility in the State of Kansas* (Order dated December 7, 2011), at 25.

[8] Order of the Commission, Cause No. 44264, *Petition of Grain Belt Express Clean Line LLC* (Order dated May 22, 2013), at 18-19.

contractors to be used, the contract terms, and the prior relevant experience of members of Grain Belt Express' and Clean Line's management teams. GBX states that the Staff and intervenor argument ignores that members of Clean Line's management team and National Grid (a principal investor in Clean Line) have considerable experience with organizing construction management teams and overseeing the construction of large electric industry projects, including transmission lines. GBX states that members of the management of Bluescape Resources, Clean Line's newest investor, also have experience with transmission. GBX Ex. 1.0 at 52-54; GBX Ex. 1.2; GBX Ex. 1.4; GBX Ex. 10.0 at 4; Tr. 356, 641, 647; GBX IB at 93-94; GBX RB at 52-53.

Grain Belt Express further states that an entity's previous construction of a transmission line should not be a precondition for the Commission's determination as to whether a CPCN applicant possesses the capability to manage the construction of a proposed transmission line, because otherwise it would be impossible for new entrants to be certified to construct new transmission lines in Illinois. GBX Ex. 1.5 at 2-3. Grain Belt Express also points out that Staff raised the same concern in the Rock Island CPCN proceeding, Docket 12-0560, and the Commission nonetheless found that Rock Island was capable of efficiently managing and supervising the construction process and had taken sufficient action to ensure adequate and efficient construction and supervision of the construction. Order in Docket 12-0560 at 130-131, 222; GBX IB at 95.

Grain Belt Express responded to CCPO's assertion that since Grain Belt Express is not a public utility, the Commission has no track record to rely upon as to Grain Belt Express's ability to efficiently manage and supervise the construction process. CCPO IB a 12; GBX RB at 52 note 55. GBX responded that the fact that it is or is not a public utility has no bearing on its ability to manage and supervise the construction of the Project. GBX RB at 52 note 55.

In responding to the Staff and intervenor arguments, Grain Belt Express reiterates that National Grid, which is owned by one of the largest investor-owned utility companies and largest owners and operators of electric transmission facilities in the world, was a 40% owner of Clean Line at the time of Grain Belt Express' application and therefore has a strong interest in Grain Belt Express' effective management of the construction of the Project. GBX Ex. 1.0 at 11, 54; GBX Ex. 10.0 at 6, 7; GBX RB at 53-54. Grain Belt Express states that the Commission should consider that National Grid, an experienced developer, builder and operator of transmission facilities, would not have invested $55.7 million of at-risk capital in Clean Line – which it can only recover and earn a return on if Clean Line's projects are successfully constructed and brought into operation – if it did not have confidence that Clean Line and its subsidiaries will be able to efficiently manage the construction of their transmission line projects and bring them to completion. GBX Ex. 10.0 at 6; GBX RB at 54. GBX further reiterates that in managing the construction of the Project, it will be able to draw on the relevant and extensive prior transmission line and construction management experience of National Grid. GBX Ex. 1.0 at 34-35, 54; GBX RB at 54. Grain Belt Express explains that National Grid has committed to making its engineering, procurement, licensing, construction and project management skills and resources available to Clean Line and Grain Belt Express. GBX Ex. 1.0 at 34; GBX Ex. 10.0 at 12; GBX RB at 54. Additionally, members of the management of Clean Line's most recent new investor, Bluescape Resources, have experience in building transmission lines. Tr. 356, 641, 647; GBX IB at 94; GBX RB at 54.

Grain Belt Express disputed IAA's argument that the Project will be managed by "inexperienced employees" with "little relevant experience." IAA IB at 35, 36; GBX RB at 54. Grain Belt Express reiterated that Mr. Skelly provided extensive evidence on the relevant experience of Clean Line's management team. GBX Ex. 1.0 at 52-53; GBX Ex. 1.2; GBX Ex. 1.4; GBX RB at 54. Mr. Skelly further explained that in addition to finding people who have experience working on transmission line projects, it is important to find people with a "with a wide range of skills," including people who understand the local environment, people who can work with local authorities to obtain necessary permits, and people who have technical talents and experience is developing, constructing and operating similar facilities. GBX Ex. 1.0 at 32-33; GBX RB at 54-55. Grain Belt Express asserts that therefore, in addition to prior transmission line projects, the Commission should consider the totality of the extensive, prior experience of the key members of Clean Line's management team (as set forth in GBX Ex. 1.2) as relevant to the management of the construction of the Project. GBX RB at 55.

Grain Belt Express refuted IAA's suggestion that Grain Belt Express will not be able to efficiently manage the construction of the project because Messrs. Begley and Wallack, two members of the Clean Line board of directors, have no prior transmission line experience. IAA IB at 35; GBX RB at 55. GBX pointed out that IAA ignores that the Clean Line board of directors includes two directors from National Grid and two from Bluescape Resources, and that both National Grid and members of Bluescape Resources' management have substantial experience in electric transmission. In addition, Mr. Skelly, the seventh director, has substantial generation and transmission project management experience. GBX Ex. 1.0 at 11, 53, 54; GBX Ex. 10.0 at 7; Tr. 257, 258, 356, 641, 647; GBX IB at 93, 94; GBX RB at 55. Grain Belt Express argues that the Clean Line board can provide sufficient oversight of the construction management activities, from a board of directors perspective. GBX RB at 55.

Grain Belt Express responded to IAA's assertion that the Clean Line board members have no right to control the "day-to-day" management of Clean Line or its subsidiaries. IAA IB at 35; GBX RB at 55. Grain Belt Express responded that IAA failed to mention that the testimony it cites to in support of this assertion states in the very next sentence that National Grid "regularly advise[s]" Clean Line and that Clean Line "regularly ask[s]" for National Grid's advice. Tr. 966. GBX notes that Mr. Blazewicz, of National Grid, and Mr. Skelly testified that National Grid has committed to making its engineering, procurement, licensing, construction and project management skills and resources available to Clean Line and Grain Belt Express. GBX Ex. 1.0 at 34-35; GBX Ex. 10.0 at 7, 12; GBX IB at 94; GBX RB at 55.

Grain Belt Express responded to IAA's assertion that Grain Belt Express' management team may not be sufficient to manage the construction of the Project because GBX will have an "insufficient number of employees" with "too many concurrent work obligations" because these employees will be managing up to five different transmission line projects around the country. IAA IB at 34, 35; GBX RB at 56. CCPO similarly suggests that Grain Belt Express may not be able to efficiently manage the construction of the Project if this Project and the four other projects in Clean Line's portfolio proceed at the same time (CCPO IB at 13; GBX RB at 56 note 57), while LACI also argues that "senior management of Clean, including key senior officers Mr. Skelly, Dr. Galli, and Mr. Berry are responsible for all five projects." LACI IB at 34; GBX RB at 56 note 57. In response, GBX clarified that the construction management organization

presented on Grain Belt Express Ex. 1.3 is to manage construction of the Grain Belt Express Project, not to manage construction of the projects of Clean Line's other subsidiaries. GBX RB at 56. Grain Belt Express points out that Mr. Skelly testified that except for the EVP of Transmission and Technical Services, the positions listed in the Grain Belt Express Construction Management Organization (set forth in GBX Ex. 1.3) will be "dedicated exclusively" to the Grain Belt Express Project. Tr. 278; GBX RB at 56.

In response to the intervenor arguments, Grain Belt Express further clarified that it will not commence construction of the Project unless and until there is sufficient construction financing in place for the entire cost of the Project. GBX RB at 56. GBX explained that prior to commencing construction, it will have adequate financial resources in place to have a fully staffed construction management organization that is exclusively dedicated and assigned to the Project. GBX RB at 56-57. Grain Belt Express further explained that the proposed financing condition addresses IAA's concern that Grain Belt Express must show it "can run an effective and financially viable business" so as to demonstrate that Grain Belt Express meets this criterion of §8-406.1(f)(2). IAA IB at 36; GBX RB at 57. Grain Belt Express states that, by satisfying the requirements of the financing condition, it will have demonstrated that it is a viable business because it has signed up a sufficient number of transmission customers and secured $2.75 billion in equity and debt financing. GBX RB at 57.

Grain Belt Express addressed IAA's, LACI's and Staff's argument that they are concerned about Grain Belt Express' ability to manage the construction of the Project because HVDC technology is "uncommon" and "extremely rare." IAA IB at 35; LACI IB at 34; Staff IB at 21; GBX RB at 57. Grain Belt Express explained that the assertion that HVDC lines are "rare" or "uncommon" is unfounded. GBX RB at 57. GBX stated that HVDC technology has been used and proven for several decades, that there are over 30 HVDC installations in North America (dating back as far as 1968), that HVDC applications are commonplace worldwide and are continuing to increase in applications similar to what Grain Belt Express plans to use for the Project (and Clean Line plans to use for its three other DC transmission projects), and that there are significant HVDC transmission applications in India, China, Australia, New Zealand, Brazil, Japan and Europe. GBX Ex. 2.0 at 10; GBX IB at 127; GBX RB at 57. GBX further explained that the structural design and construction processes and practices applicable to HVDC and high voltage AC transmission lines are similar and that the means and methods of construction are the same for both HVDC and HVAC transmission lines. GBX Ex. 9.0 at 1; GBX Ex. 9.4 at 9; GBX IB at 92 note 90; GBX RB at 57-58. Grain Belt Express stated that there is no reason to conclude that the construction of the Project will be more difficult to manage simply because it will use HVDC technology. GBX RB at 58.

Grain Belt Express responded to the suggestions by Staff, IAA, and CCPO that the Project will be challenging to manage because the project is "large scale" and is approximately 780 miles long. Staff IB at 21; IAA IB at 34; CCPO IB at 12; GBX RB at 58. Grain Belt Express explained that the overall length of the Project does not in and of itself establish that the Project will be materially more challenging to manage and supervise than a shorter transmission line project. GBX RB at 58. GBX explained that it will generally repeat the same construction process for each of the typical landowner's properties that the Project crosses. Therefore a longer transmission line project may require the transmission line contractor to repeat the same construction process and activities on a greater number of parcels, but doing so does not render such projects

more challenging to construct than a shorter project. GBX Ex. 9.4 at 7-8; GBX RB at 58.

2.-x. [Other Parties' Positions]

y. Commission Analysis and Conclusion

Based on its review of the evidence and the parties' arguments, the Commission concludes that Grain Belt Express has demonstrated that it is capable of efficiently managing and supervising the construction process and has taken sufficient action to ensure adequate and efficient construction and supervision thereof. In reaching this conclusion, the Commission relies on the evidence that: (i) Clean Line and Grain Belt Express have a plan in place to establish an effective construction management organization and are implementing that plan; (ii) Grain Belt Express will engage experienced contractors to carry out the tasks associated with constructing the Project and placing it into operation; (iii) Grain Belt Express will enter into contracts with its contractors that will provide for effective project controls and oversight mechanisms from the project owner's perspective; and (iv) members of Clean Line's management team and one of Clean Line's principal investors, National Grid, have extensive experience in developing construction management organizations and overseeing construction and completion of large projects in the electric utility industry. Additionally, the record shows that Quanta is a leading, experienced, well-resourced contractor serving the electric, gas and pipeline sector. Further, the record also shows that National Grid, one of Grain Belt Express' principal owners, is one of the nation's and the world's most experienced owners, developers and operators of transmission facilities, including HVDC transmission, and that National Grid has committed to making its considerable experience, expertise and technical resources available to Clean Line and Grain Belt Express to assist in the construction process for the Project.

The Commission does not believe that the fact that Grain Belt Express, Clean Line and the other Clean Line subsidiaries, as entities, have not previously constructed a transmission line, provides a basis to conclude that Grain Belt Express is not capable of efficiently managing and supervising the construction process for the Project. Rather, the Commission has focused, and it believes appropriately so, on the indicators of capability summarized in the preceding paragraph. Further, although none of the Clean Line entities as such has constructed a transmission line, the evidence shows that members of the Clean Line and Grain Belt Express management teams have experience in transmission development, design and construction and that Grain Belt Express will also have available to it the considerable expertise and resources of National Grid, as well as experienced, qualified contractors and an experienced Owner's Engineer to provide project management expertise and assistance.

The Commission notes that it has previously found that Grain Belt Express' sister company, Rock Island, was capable of efficiently managing and supervising the construction of the Rock Island project, and that the Commission's finding was principally based on the same evidence presented by Grain Belt Express in this docket. The Commission also notes that regulatory commissions in three other states have granted certificates as utilities or to construct transmission lines to other Clean Line subsidiaries that the Commission understands are constructing similar transmission projects and using a similar business model as Grain Belt Express; and those commissions have found that the Clean Line subsidiaries have the necessary

managerial and technical capabilities to construct their respective transmission projects. The Commission also notes that PJM has concluded that Clean Line and its subsidiary operating companies satisfy the pre-qualification requirements for Designated Entity status under the PJM Amended and Restated Operating Agreement. This determination is based on an evaluation conducted by PJM of the applicant's ability to engineer, develop, construct, operate and maintain a transmission facility within PJM.

The Commission does not believe that there should be any special concerns in regards to this statutory criterion due to the fact that the Project is an HVDC line not an AC line. The record shows that with respect to construction of the transmission line, there are no material differences between constructing a DC line and an AC line. No party has identified any particular differences or difficulties in constructing a DC line versus an AC line. With respect to the converter stations, which are the unique aspect of HVDC technology, Grain Belt Express will retain one of three global leaders in HVDC equipment manufacturing, each of which has decades of experience successfully designing, manufacturing, and commissioning large-scale HVDC projects.

The Commission notes that Grain Belt Express' construction management organization appears to comprehensively cover the relevant task areas and that no party has criticized or identified any deficiencies in the structure of the construction management organization and the positions included in it.

Accordingly, the Commission finds that Grain Belt Express has demonstrated that it meets the criterion of Section 8-406.1(f)(2).

D. Section 8-406.1(f)(3) – Capability to Finance the Construction of the Project without Significant Adverse Financial Consequences

1. Grain Belt Express' Position

Grain Belt Express states that it has demonstrated that it is capable of financing the construction of the Project without significant adverse financial consequences. GBX states that it has a feasible plan for raising the capital needed to construct the Project using a project financing approach, which is frequently used to finance large capital projects in the energy industry and other infrastructure sectors. GBX states that project financing is a time-tested and proven way to finance the construction of transmission lines; there are a significant number of precedent transactions that have established a framework for terms, pricing, legal documentation, and interested lenders and investors. GBX states that management team of Clean Line has the experience and demonstrated capability to execute large project financing transactions in the energy sector. GBX Ex. 11.0 at 88; GBX IB at 97. Grain Belt Express also states that the project finance approach it will use, coupled with the financing condition to the CPCN that Grain Belt Express proposes (matching the financing condition included in the CPCN order for the Rock Island project in Docket 12-0560) and that Staff endorses (ICC Staff Ex. 2.0 at 2), will prevent adverse financial consequences to Grain Belt Express' transmission customers and investors as well as to landowners and Illinois retail ratepayers. GBX Ex. 11.0 at 84-88; GBX IB at 97-98.

Grain Belt Express states that it will raise the capital needed to construct the Project using a project finance approach. According to GBX, key characteristics of the project financing method are that the project is owned by a special purpose legal entity

which has no businesses, assets or liabilities other than those of the project and its business operations; and that the capital to construct the project is raised based on the anticipated revenues from and assets of the project. GBX states that project finance lenders and rating agencies prefer the borrower to be organized as a special purpose entity, with no outside commitments or agreements unrelated to the project to be financed that could be a source of additional liabilities or claims; the absence of other liabilities or claims from other sources improves the risk profile of the entity and allows lenders to focus on the quality of the project's underlying revenue. GBX Ex. 11.0 at 70-71, 73-74; GBX Ex. 11.13 at 26; GBX IB at 98. Grain Belt Express states that it has been established as a special purpose entity to construct, own and operate the Project. Grain Belt Express will own all of the Project's assets, hold all of the Project's contracts, and be party to the easement agreements on all property on which it owns structures. The revenues that will provide security for the financings are the transmission service contracts that Grain Belt Express will enter into with its transmission customers. The assets that will provide security for the financings are the transmission line facilities, converter stations and easement rights. GBX Ex. 11.0 at 71, 73; GBX Ex. 11.13 at 25-26; GBX IB at 98-99.

According to Grain Belt Express, project financing is widely used to raise capital for projects in the energy industry, including transmission projects. GBX states that the capital markets have a substantial history of supporting transmission projects, including merchant transmission projects, through debt and equity financings, and experience shows that significant amounts of liquidity exist in the capital markets for transmission projects that have reached an appropriate stage of development. GBX states that numerous electric transmission projects, including merchant or "shipper pays" projects like the Grain Belt Express Project, have been successfully financed using the project finance approach. GBX Ex. 1.0 at 36; GBX Ex. 11.0 at 75-78; GBX Ex. 11.11. GBX presented GBX Exhibit 11.11 which it states lists representative project financing equity and debt transactions for U.S. transmission projects totaling approximately $7,272,400 of capital raised. GBX further states that this exhibit shows that a number of very significant financings for transmission projects have occurred during the last five years. GBX states that some of these financings were over-subscribed, meaning that more lenders wanted to participate than was possible based on the size of the loan or debt offerings. GBX states that significant institutional investors, such as the California Public Employees Retirement System, John Hancock Financial Services, and TIAA-CREF, and private equity firms such as ArcLight Capital Partners, Energy Investors Fund, Energy Capital Partners, and Starwood Energy, have made major investments in transmission line projects. GBX further states that lead investors or arrangers for recent substantial transmission project financings have included such companies as (in addition to the entities just listed), BNP Paribas, Citigroup, GE Financial Services, Royal Bank of Canada, Societe Generale, Mitsubishi UFJ, Deutsche Bank. Mizuho, and Credit Agricole. GBX Ex. 11.0 at 77-78; GBX Ex. 11.11; GBX IB at 99. GBX states that, In addition to electric transmission projects, project financing has long been used to finance the construction of new independent power generation projects; for example, the U.S. wind power industry has raised tens of billions of dollars of project-level debt and equity over the last five years. GBX states that natural gas pipelines have also commonly used the project finance model to fund the construction of new pipeline projects. GBX Ex. 11.0 at 79; GBX IB at 99-100.

Grain Belt Express states that it and its parent company Clean Line are currently

engaged in the development stage of the Project, which includes route development, interconnection studies, obtaining major regulatory approvals including CPCNs or comparable authorities from this and other state commissions, and obtaining other permits. GBX Ex. 11.0 at 70, 72-73. GBX states that funding for the development stage activities is provided by the equity investments of Clean Line's four owners, including ZAM Ventures, which has invested approximately $65,500,000, and National Grid USA (through its subsidiary Grid America Holdings Inc.), which has invested approximately $55,700,000. *Id*. at 71-72; GBX Ex. 1.0 at 35. GBX states that National Grid USA and its subsidiaries are major participants in the electric and natural gas transmission and distribution sectors in the U.S., and it is a financially strong company with substantial assets and revenues. National Grid is a very experienced investor in electric infrastructure projects, and its participation as an equity investor in Clean Line provides additional credibility in the capital markets for Clean Line's projects, financing plans, and financial capabilities. National Grid USA's parent company, National Grid plc, has approximately $87 billion in assets and over $24 billion in annual revenues. GBX Ex. 10.0 at 3-4; GBX Ex. 11.0 at 72. GBX states that ZAM Ventures and the Zilkha family, another of Clean Line's equity investors, have previously made significant investments in companies in the energy industry, including companies developing renewable resources projects, and are familiar with the development and financing model being used by Clean Line. According to Grain Belt Express, these equity investors have the commitment and experience to support Grain Belt Express's development and financing plan. GBX Ex. 11.0 at 72, 82; GBX IB at 100. GBX states that, as of the date the Application was filed (April 10, 2015), the total amount of equity investment in Clean Line was approximately $125,000,000. GBX Ex. 11.0 at 72. During the course of this case, an additional investor, Bluescape Resources (through its subsidiary Clean Grid Holdings LLC) committed to invest $17,000,000, with an option to invest an additional $33,000,000. GBX Ex. 11.13 at 24; Tr. 1073. GBX states that, as Clean Line's projects, including the Grain Belt Express Project, achieve additional development milestones, it will be become progressively easier to attract additional capital. GBX Ex. 11.13 at 24; GBX IB at 101.

Grain Belt Express states that when it has completed the necessary permitting and licensing processes, including obtaining the major regulatory approvals, to enable it to have certainty on the route and construction schedule for the Project, it will enter into long-term contracts with customers for transmission capacity on the Project. Grain Belt Express will then issue project-specific debt secured by the revenue stream from the transmission capacity contracts, to raise the capital needed to complete remaining development activities, construct the Project, and place it into operation. GBX Ex. 11.0 at 75. GBX states that it is typical in project finance markets that project-based lenders and equity investors will require the project to have obtained the necessary permits and regulatory and other approvals, (which are needed in order to have a high degree of certainty as to budget and timeline, before funding their financing commitments. *Id.* at 81-82; GBX IB at 101. Grain Belt Express states that the exact percentage of the Project's transmission capacity that will need to be under contract in order to obtain financing commitments for the full construction cost of the Project will depend on the prices, length, and counterparty creditworthiness of the transmission contracts. The long-term transmission contracts will provide for a reservation charge, requiring the customer to pay for its reserved capacity regardless of the percentage of time it is used. GBX states that this pricing arrangement is typical for transmission lines operated by the transmission owner members of SPP, MISO and PJM. It is also similar to the

contractual arrangements used for pipelines. The contracts will also include credit requirements that will provide revenue certainty for the Project's lenders. According to GBX, lenders typically base project financing borrowing on the project's debt service coverage ratios, where the numerator is contracted cash flow available to service debt and the denominator is principal and interest owed. These coverage ratios allow projects such as the Project to raise substantial debt financing to fund construction costs while maintaining a margin of safety on debt repayment in the event of unforeseen operational or commercial problems. GBX Ex. 11.0 at 80-81; GBX IB at 101-102

Grain Belt Express states that, in addition to the capital raised through debt issuances secured by the long-term transmission contracts, additional equity capital may also be raised to help finance construction of the Project, or the existing investors may make equity investments in the Project. GBX Ex. 11.0 at 75. GBX states that many successful transmission projects have followed the above-described model, in which the initial equity investors fund development activities and then the project is refinanced at the project company level to fund construction. *Id.*; GBX IB at 102.

Grain Belt Express states that the capability to finance the Project is high because the Project is a very economically viable and commercially attractive prospect. GBX states that the low cost at which new, high capacity factor wind generation facilities can be constructed in western Kansas and the low cost of their output, coupled with the efficient, direct transmission access that the Project's HVDC transmission facilities will provide to MISO and PJM markets, means that the electricity produced by the Kansas wind generators can be delivered into these markets at competitive prices. Further, GBX states, the delivered cost of electricity produced by western Kansas wind farms and delivered into MISO and PJM markets by the Project will be competitive with or lower cost than the output of other new generation alternatives such as natural gas combined cycle generation or new wind plants in Illinois. With no fuel costs and therefore (unlike thermal generation) no risk of future variability for this expense item, the wind generators can enter into long-term supply contracts at attractive prices, and correspondingly can enter into long-term contracts for transmission capacity on the Project. GBX Ex.11.0 at 37, 39, 41-45; Infinity Ex. 1 at 7-8. GBX states that the commercial attractiveness of the Project for Kansas wind generation developers to deliver the output of their plants to MISO and PJM will enable Grain Belt Express to contract a significant portion of the Project's transmission capacity with long-term contracts, which in turn will make investing in or lending to the Project attractive to investors and lenders interested in predictable long-term returns. GBX IB at 102-103.

Grain Belt Express states that Clean Line's management team has the expertise and experience to successfully execute the financing plan for the Project. GBX states that Clean Line's President and CEO, its COO, and its Executive Vice President-Strategy and Finance, were previously employed at Horizon Wind Energy, one of the leading developers of wind generation facilities in the U.S., where they brought a number of significant wind energy projects into operation using project financing. For example, Clean Line's Executive Vice President – Strategy and Finance led over $2,000,000,000 of project finance transactions at Horizon Wind Energy. Clean Line's COO, while the Chief Financial Officer at Horizon Wind Energy, financed more than 15 wind farms and generation tie lines totaling over 2,400 MW of capacity. GBX Ex. 11.0 at 79, 82-83; GBX Ex. 1.2 at 1-2. GBX states that other Clean Line executives also have many years of experience in developing independent power generation projects

and in significant financial transactions in the renewable energy industry. GBX Ex. 11.0 at 83; GBX Ex. 1.2 at 3, 5. Further, GBX states that members of the Clean Line management team are familiar with and have worked on prior transactions with many of the lenders and equity investors that have made previous investments in transmission projects or that have expressed interest in investing in Clean Line's projects. GBX Ex. 11.0 at 81; GBX IB at 103.

Grain Belt Express proposes that the Commission adopt the same financing condition for the Project as the Commission adopted for the Rock Island project in its CPCN order in Docket 12-0560. GBX Ex. 11.0 at 84. The full text of the financing condition (as revised to refer to and be applicable to Grain Belt Express) is provided in §IV.E, Proposed Conditions to Grant of the CPCN, below; however, in summary, it requires Grain Belt Express to make a filing with the Commission documenting (in the manner prescribed in the condition) that Grain Belt Express has secured debt and equity capital and/or financing commitments in a total amount equal to or greater than the total remaining Project cost, before it can begin to install transmission facilities on easement properties. *Id*. GBX states that the financing condition will protect customers, investors, and other interested stakeholders from experiencing significant adverse financial consequences from the financing of the Project. GBX IB at 103-104.

Grain Belt Express states that with respect to landowners from whom it will obtain easements, the financing condition will prevent any possibility that Grain Belt Express would begin construction of the Project and install structures on easements, but then abandon them because of insufficient funds to complete the Project. GBX Ex. 11.0 at 86. GBX states that with respect to its transmission customers, the financing condition provides assurance that once the Project begins construction, there is sufficient financing in place to complete it; therefore, the transmission customers can make their own financial commitments to build wind generation projects to connect to the Project, with confidence that Grain Belt Express will be able to complete construction of the Project as planned. *Id.* With respect to Grain Belt Express' investors and lenders, GBX states that the financing condition protects them against the risk that Grain Belt Express would begin construction of the Project but be unable to complete it due to inability to raise sufficient additional capital to complete construction. *Id.* at 87. Finally, with respect to Illinois retail ratepayers, while Grain Belt Express has no plans to request cost recovery through RTO cost allocation processes or other socialized cost recovery methods, and has proposed a separate condition on this topic, the financing condition ensures that Grain Belt Express will not find itself in a situation in which it begins construction of the Project, finds it does not have sufficient committed financing to complete construction, and therefore must ask the Commission for approval to recover costs of the Project through a mechanism that recovers the costs from the general body of Illinois ratepayers. *Id*. at 87-88; GBX IB at 104-105.

Grain Belt Express' Responses to Other Parties' Arguments

Grain Belt Express stated that the arguments presented by the intervenors on the §8-406.1(f)(3) criterion are essentially the same as the arguments presented by opponent on this issue in the Rock Island CPCN case, Docket 12-0560, namely: that Grain Belt Express is a "shell" company; that its parent company Clean Line currently has only a fraction of the capital required for construction of the Project; that Grain Belt Express has no customers signed to contracts; that the project financing method is untested; and that the proposed financing condition is insufficient. GBX RB at 59. GBX

states that, likewise, it has presented very similar evidence to the evidence its sister company presented in Docket 12-0560 on the identical criterion in §8-406(b): that Clean Line continues to secure sufficient new capital to finance development activities for the Project; that the project finance approach is well-established in the financial markets and has been used to raise hundreds of millions of dollars to finance the construction of transmission lines, generating plants, pipelines, and other infrastructure projects; that for the project finance approach, investors, lenders and credit rating agencies strongly prefer that the project company be organized as a single purpose entity with no other business activities; that many significant investors and lenders have participated in financing new transmission projects through the project finance method and continue to be interested in doing so; that transmission customers will not enter into binding, long term transmission contracts until the Project obtains its primary regulatory approvals authorizing the line to be built; that Clean Line's management is experienced in raising significant amounts of capital to finance the construction of energy industry projects, and has the expertise to execute the financing plan; and that the proposed financing requirement will ensure that Grain Belt Express will secure sufficient construction financing to cover the entire construction cost of the Project before it begins to construct transmission facilities, and that it will protect transmission customers, retail ratepayers, landowners and the Project's investors from significant adverse financial consequences. GBX states that all of this evidence is similar to the evidence on which the Commission, in the Rock Island CPCN case, found this criterion was satisfied (Order in Docket 12-0560 at 131-137), although a notable distinction is that based on its January 2014 Request for Information and its February 2014 open solicitation for transmission service requests, Grain Belt Express is considerably farther along in identifying and securing transmission service customers than was Rock Island. GBX IB at 44-46; GBX RB at 59-60.

Grain Belt Express responded to CCPO's argument based on Clean Line's cash on hand on May 31, 2015. CCPO IB at 13. GBX states that CCPO's argument does not take into account that a term sheet with Bluescape Resources for its investment had already been negotiated and that in June 2015, Bluescape Resources invested $12 million of new capital in Clean Line. Tr. 1073-1074. Nor does it take into account how much cash on hand is needed on a daily basis to meet the obligations of the business. GBX RB at 60. Additionally, both CCPO and IAA argue that Clean Line does not have any bank loans or lines of credit. CCPO IB at 13; IAA IB at 36. GBX states that, apparently, CCPO and IAA think this is bad, but in fact it is good: Clean Line has been able to fund the development activities for its subsidiaries' projects entirely through equity investments from its owners, without having to incur debt. As of the date the Application was filed, Clean Line's owners had invested a total of $125,000,000 of equity capital in the company, and Grain Belt Express had no debt. GBX Ex. 11.0 at 72. Subsequently, Bluescape Resources has committed to invest an additional $17,000,000 in Clean Line. GBX Ex. 11.13 at 24. GBX RB at 60.

Grain Belt Express responded to LACI's argument that Grain Belt Express has not identified another transmission line project exactly like this Project that has raised its construction financing through project financing. LACI IB at 35. Grain Belt Express states that GBX Exhibit 11.11 shows a total of 19 precedent project financing transactions for transmission projects, raising a total of over $7,270,400,000. As shown on the exhibit, eight of the transactions were for transmission projects using the "capacity sales" revenue model, like Grain Belt Express. LACI states that the CREZ transmission projects in Texas were "rate regulated" (LACI IB at 35; *see* GBX Ex.

11.11); GBX responded, however, that many of the CREZ transmission projects are similar to the Grain Belt Express Project in that they were developed by independent transmission companies, not by incumbent utilities. GBX Ex. 11.0 at 77-78. GBX states that during 2011, three of these transmission companies raised an aggregate amount of approximately $1.1 billion of debt capital for their transmission projects. *Id*. at 78. GBX added that the project finance approach has also been widely used to raise construction financing for new independent power generation projects (which are typically financed based on power purchase or off-take agreements) and new pipeline projects; for example, the U.S. wind power industry has raised tens of billions of dollars of project-level debt and equity over the past five years. GBX Ex. 11.0 at 79; GBX RB at 60-61.

Grain Belt Express responded to IAA's characterization of Clean Line's financial management approach as "raise money, spend money, run out of money, raise more money." IAA IB at 36-37. GBX states that the history recounted by IAA in fact demonstrates that Clean Line has been successful, over a period of years, in continuing to raise new equity capital, from both existing and new investors, as the needs of its projects required. After obtaining initial capital from the first two investors, ZAM Ventures and Michael Zilkha, Clean Line obtained an investment commitment in November 2012 from a new investor, National Grid, for $40 million of equity capital. In 2014, National Grid committed to invest an additional $15 million, and ZAM Ventures made additional equity investments as well. (As of the date of the Application, ZAM Ventures had invested a total of $65.5 million in Clean Line and National Grid has invested a total of $55.7 million. GBX Ex. 11.0 at 71.) Most recently, Clean Line has secured additional investment from another new investor, Bluescape Resources. Bluescape Resources has committed to invest $17 million in Clean Line and has an option to invest an additional $33 million. GBX Ex.11.13 at 24; GBX RB at 62. GBX states that at the time the Rock Island CPCN case, Docket 12-0560, was being litigated and briefed, in December 2013 and early 2014, opponents were making similar arguments to the effect that "Clean Line will soon run out of money." (*See* Order in Docket 12-0560 at 145-148.) GBX states, however, that since that time, Clean Line has continued to successfully raise additional equity capital, including $15 million from National Grid, $17 million to $50 million from Bluescape Resources, and additional amounts from ZAM Ventures, to continue its operations and development activities on its projects. GBX RB at 62.

Grain Belt Express states that the intervenors are simply unable to come to grips with the fact that there is no reason for Clean Line to obtain additional investment capital significantly in advance of when it is needed, and there is certainly no need to secure the amounts of capital needed to construct a project years in advance of the start of construction. GBX states that such an approach would unnecessarily tie up investment capital; further, lenders typically charge costly commitment fees for advance loan commitments. GBX states that commitments for financing are typically made by lenders and investors much closer to the time that construction is scheduled to commence, and in any event such commitments are very seldom made before the project obtains its major required regulatory approvals. GBX Ex. 11.0 at 81-82. GBX states that securing commitments for financing to fund the full construction cost of the Project, in advance of obtaining the major regulatory approvals (such as the CPCN requested in this case), is not the practice in the financial markets, and is not necessary to demonstrate that Grain Belt Express is capable of financing the construction of the Project without serious adverse financial consequences. GBX RB at 62.

2.-x. [Other Parties' Positions]

y. Commission Analysis and Conclusion

Based on its review of the Application and the evidentiary record, and the parties' arguments on this issue, the Commission concludes that Grain Belt Express has demonstrated that it is capable of financing the proposed construction without significant adverse financial consequences for the utility or its customers. In reaching this conclusion, the Commission relies principally on the following evidence: (1) Grain Belt Express plans to use a project financing approach that is commonly used in the energy and infrastructure industries and has been successfully used to raise billions of dollars for projects in the energy industry, including transmission lines, generating plants, and pipelines. (2) Grain Belt Express has established a common and appropriate organizational structure for project financing, specifically a single purpose legal entity that will own the facility to be financed and has no other assets, liabilities or businesses. (3) There is ample evidence of the need for the Project and the cost advantage of developing and installing wind generation facilities in western Kansas, to support the conclusion that Grain Belt Express will be able to enter into sufficient transmission contracts to support the project financing. (4) The capital markets have a substantial history of supporting transmission projects (including merchant projects such as the Project) through debt and equity financings, and large amounts of liquidity exists in the capital markets for transmission projects that have reached an advanced stage of development. (5) Significant, well-known institutional investors and investment bankers are active in investing in and raising capital for transmission projects. (6) The management team of Grain Belt Express and Clean Line is experienced in raising capital through project financings for renewable energy projects in the energy industry and has the experience, expertise and financial market contacts to successfully execute Grain Belt Express' financing plan. Grain Belt Express has demonstrated that it is capable of financing the construction of the Project based on the foregoing evidence. The Commission notes that the evidence on which it is basing this finding is comparable to the evidence on this issue in Docket 12-0560, where the Commission found that Grain Belt Express' sister company, Rock Island, is capable of financing the construction of its transmission project.

The Commission believes, as it did in the Rock Island CPCN case, that the financing condition is a key component of finding that this statutory criterion has been satisfied. As the Commission discussed in the Rock Island CPCN Order, the criterion of §8-406.1(f)(3) must be considered in its entirety: that the applicant "is capable of financing the proposed construction without significant adverse financial consequences for the utility or its customers" (emphasis added). The criterion requires that the applicant be capable of raising the necessary capital without adverse financial consequences. In this case, as in the Rock Island CPCN case, the financing condition prevents adverse financial consequences, specifically, that Grain Belt Express would commence construction but be unable to complete it due to insufficient funding, thereby leaving a partially completed Project or the possible need for financial assistance from ratepayers to complete the Project. Further, in the event that Grain Belt Express were unable to satisfy the financing condition and therefore to construct the Project, the only parties experiencing adverse financial consequences would be Grain Belt Express' investors, whose investment in Clean Line of development capital that has been expended on the Grain Belt Express Project may be lost.

E. Proposed Conditions Relating to the Grant of the CPCN

1. Cost Allocation Condition

a. Grain Belt Express' Position

In its Application and testimony, Grain Belt Express has proposed that the Commission adopt a number of requirements or conditions to the CPCN for the Project. GBX states that these conditions were extensively litigated in the CPCN for the Rock Island transmission project and were adopted by the Commission as requirements imposed on Rock Island in the Order in Docket 12-0560. GBX IB at 105. The first of the proposed conditions is the cost allocation condition.

Grain Belt Express states that, as a merchant transmission project, it will recover the costs of constructing and operating the Project directly through its charges to the transmission service customers that purchase transmission capacity and service on the Project. GBX states that it does not plan to attempt to recover the costs of constructing and operating the Project through RTO cost allocation processes or through other mechanisms that would spread and recover the costs from the general body of retail ratepayers in an RTO footprint or the service areas of one or more utilities *e.g.*, by recovering the costs from all ratepayers through an RTO transmission tariff). GBX Ex. 11.0 at 28, 68-69, 87. Grain Belt Express is willing to formally agree not to allocate the costs of the Project to Illinois ratepayers without first seeking additional approval from the Commission to do so. GBX states that this commitment encompasses both the costs to construct the Project and the costs of system upgrades allocated to Grain Belt Express under the RTO interconnection processes. This is the same requirement regarding regional cost allocation that the Commission adopted in its CPCN order for the Rock Island project in Docket 12-0560. GBX Ex. 11.0 at 69; GBX IB at 106. The specific proposed language for this requirement (taken from the Rock Island order, but modified to be applicable to Grain Belt Express), is:

> Prior to recovering any Project costs from Illinois retail ratepayers through PJM or MISO regional cost allocation, Grain Belt Express will obtain the permission of the Illinois Commerce Commission in a new proceeding initiated by Grain Belt Express. For the purpose of the prior sentence, any system upgrades set forth in an interconnection agreement with PJM or MISO or SPP and the costs of which are allocated to Grain Belt Express will be considered "Project costs."

Grain Belt Express states that conditioning its CPCN in this manner addresses any potential concerns about future cost allocation without Commission review, since Grain Belt Express would have to persuade the Commission, at a later date and in a separate proceeding, that the Project's benefits to ratepayers outweigh its costs to ratepayers, in order to justify resort to cost allocation. GBX Ex. 11.0 at 69; GBX IB at 106-107.

Grain Belt Express responded to LACI's argument that the Commission may have no control over the imposition of Project costs to Illinois retail ratepayers. LACI IB at 36-37. Grain Belt Express stated that this is essentially the same argument made by MEZ, and that GBX disagrees with LACI's argument, for the same reasons it disagrees with MEZ's similar argument. GBX RB at 67.

Grain Belt Express noted that at pages 40-41 of IAA's Initial Brief, IAA appears to be arguing that Grain Belt Express should be required to establish compliance with the conditions Grain Belt Express has proposed before proceeding with the Project. GBX RB at 66. GBX states, however, that this is already an express requirement of the financing requirement, *i.e.*, that Grain Belt Express cannot begin to install transmission facilities on easement properties until it has satisfied the financing requirement, including documenting compliance through the required compliance filing with the Commission. This is also essentially a requirement of the interconnection agreement requirement, *i.e.*, Grain Belt Express cannot energize the Project until it complies with the interconnection requirements of, and signs all necessary interconnection agreements with, SPP, MISO and PJM. GBX IB §IV.E.3. GBX states that the cost allocation condition is intended to be in effect and applicable throughout the development, construction and operation of the Project, so requiring Grain Belt Express to establish compliance with this condition before beginning to construct the Project would make no sense. Similarly, GBX states that the condition relating to protection and restoration of landowner properties from potential impacts of construction establishes processes and procedures that Grain Belt Express and its contractors are to follow during construction of the Project (and after, to the extent any remediation actions are required). GBX RB at 66.

b.-x. [Other Parties' Positions]

y. Commission Analysis and Conclusion

As it did in the Rock Island CPCN case, Docket 12-0560, and based on its consideration of the record in this case, the Commission adopts the cost allocation condition, as set forth above, as a condition to the CPCN being issued to Grain Belt Express for the Project. For the reasons stated earlier in this Order, the Commission rejects the arguments of MEZ and LACI that the Commission may lack authority to adopt and impose this condition. Adoption of the cost allocation condition as a condition to the CPCN is a proper exercise of the Commission's authority and jurisdiction to issue CPCN's for the construction and operation of electric transmission lines in the State of Illinois.

2. Financing Condition

a. Grain Belt Express' Position

As did its sister company, Rock Island, in Docket 12-0560, Grain Belt Express is willing to commit that it will not begin construction of transmission facilities on easement properties until it obtains financing commitments sufficient to cover the entire cost of the Project. Specifically, Grain Belt Express is willing to accept the same requirement in its CPCN order that the Commission adopted in its CPCN order for Rock Island in Docket 12-0560. GBX Ex. 11.0 at 84. The text of this requirement (revised from the Docket 12-0560 order so as to be applicable to Grain Belt Express) is as follows (GBX Ex. 11.0 at 84-85; GBX IB at 107-108):

> Grain Belt Express will not install transmission facilities for the Grain Belt Express Clean Line Project on easement property until such time as Grain Belt Express has obtained commitments for funds in a total amount equal to or greater than the total project cost. For the purposes of this condition:

(i) “install transmission facilities” shall mean to affix permanently to the ground transmission towers or other transmission equipment, including installation of bases and footings for transmission towers, but shall not include (A) preparatory work such as surveys, soil borings, engineering and design, obtaining permits and other approvals from governmental bodies, acquisition of options and easements for right-of-way, and ordering of equipment and materials, and (B) site preparation work and procurement and installation of equipment and facilities on property owned in fee by Grain Belt Express including the converter station sites;

(ii) “easement property” shall mean property on which Grain Belt Express has acquired an easement to install transmission facilities;

(iii) “has obtained commitments for funds” shall mean (A) for loans and other debt commitments, that Grain Belt Express has entered into a loan agreement(s) with a lender(s) and has received the loan funds or has the right to draw down the loan funds on a schedule that is consistent with the need for funds to complete the Project, and (B) for equity, that Grain Belt Express or its parent company has received the funds from the equity investors or that the equity investors have entered into a commitment to provide funds on a schedule that is consistent with the need for funds to complete the Project; and

(iv) “total project cost” shall mean the total estimated remaining cost, at the time that Grain Belt Express is prepared to begin to install transmission facilities, for the following Project activities: engineering, manufacturing and installation of converter stations; transmission line engineering; transmission towers; conductor; construction labor necessary to complete the Project; right of way acquisition costs; and other costs necessary to complete the Project. For reference, the total estimated project cost as of March 31, 2015 is $2.75 billion including estimated costs for network upgrades.

To allow the Commission to verify its compliance with this condition, Grain Belt Express shall submit the following documents to the Director of the Financial Analysis Division and the Director of the Public Safety & Reliability Division at such time as Grain Belt Express is prepared to begin to install transmission facilities:

a) On a confidential basis, equity and loan or other debt financing agreements and commitments entered into or obtained by Grain Belt Express or its parent company for the purpose of funding the Grain Belt Express Clean Line Project that, in the aggregate, provide commitments for funds for the total project cost;

b) An attestation certified by an officer of Grain Belt Express that Grain Belt Express has not, prior to the date of the attestation, installed transmission facilities on easement property; or a notification that such installation is scheduled to begin on a specified date;

c) A statement of the total project cost, broken out by the components listed in the definition of "total project cost," above, and certified by an officer of Grain Belt Express, along with a reconciliation of the total project cost in the statement to the total project cost as of March 31, 2015 of $2.75 billion (including estimated costs for network upgrades); and

d) A reconciliation statement, certified by an officer of Grain Belt Express, showing that the agreements and commitments for funds provided in (a) are equal to or greater than the total project cost provided in (c).

Grain Belt Express states that it will demonstrate compliance with this condition, before starting construction of the Project on easement properties in Illinois, by filing, in this docket, the documentation described in the last portion of the requirement (quoted above), showing the financing requirement has been satisfied, and will serve copies of the filing on all parties to this proceeding. GBX Ex. 11.0 at 85. GBX states that this filing and service requirement is the same as was specified by the Commission in the Rock Island CPCN order (Order in Docket 12-0560 at 151). GBX IB at 108-109.

Grain Belt Express states that the proposed financing requirement will prevent any possibility that Grain Belt Express would begin construction of the Project and install structures on landowner easements, but then be required to abandon them because of insufficient funds to complete the Project. GBX Ex. 11.0 at 86. GBX states that the financing requirement thereby protects its lenders, investors, and potential transmission service customers, as well as Illinois retail ratepayers, from "significant adverse financial consequences" (§8-406.1(f)(3)). GBX Ex. 11.0 at 86-88. GBX states that with respect to retail electric ratepayers, the financing requirement ensures that Grain Belt Express will not find itself in a situation in which it begins construction of the Project, finds it does not have sufficient committed financing to complete construction, and therefore must ask the Commission (pursuant to the cost allocation condition) for approval to recover costs of the Project through a mechanism that recovers the costs from the general body of Illinois ratepayers. *Id*. at 87-88; GBX IB at 109.

Grain Belt Express states that adoption of the financing requirement for Grain Belt Express was supported by Staff Senior Financial Analyst Janis Freetly, who pointed out that the financing requirement was consistent with the project financing approach that Grain Belt Express will use to finance the construction of the Project. ICC Staff Ex. 2.0; Tr. 331. GBX further notes that no witness for any party testified that the financing requirement should not be adopted, or proposed any changes to the above-quoted text of the financing requirement. GBX IB at 109.

Grain Belt Express responded to LACI's argument that the financing condition may not legally substitute for the statutory requirement that Grain Belt Express show it is capable of financing the proposed construction. LACI IB at 35-36. Grain Belt Express states that it has shown it is capable of financing construction of the Project, based on its financing plan, the experience and expertise of its management team, the commercial attractiveness of the Project, the history of transmission projects and other energy industry infrastructure projects being successfully financed using the project finance approach, the interest among investors in transmission projects, and other factors discussed in §IV.D of Grain Belt Express' Initial Brief. GBX states that the financing condition will protect transmission customers, investors, landowners and retail

ratepayers from significant adverse financial consequences. GBX also contends that in the Rock Island CPCN case, the Commission was not persuaded by arguments similar to LACI's argument here (Order in Docket 12-0560 at 150-151). GBX RB at 66-67.

b.-x. [Other Parties' Positions]

y. Commission Analysis and Conclusion

As it did in the Rock Island CPCN case, Docket 12-0560, and based on its consideration of the record in this case, the Commission adopts the financing requirement, as set forth above, as a condition of the CPCN it is issuing to Grain Belt Express for the Project. As discussed in the Commission's conclusion on the §8-406.1(f)(3) criterion for a CPCN, the financing condition is reasonable and appropriate to prevent "significant adverse financial consequences" in the raising of capital for the construction of the Project. The record shows that the financing condition will help to ensure that landowners, retail ratepayers, and Grain Belt Express' transmission customers and its investors, will be protected from severe adverse financial consequences.

The Commission also directs that Grain Belt Express shall demonstrate its compliance with the financing condition through a compliance filing in this docket, to be served on all parties of record, in the manner described above, which is the same process that was specified for Rock Island in the Docket 12-0560 CPCN order.

3. Interconnection Agreement Requirement

a. Grain Belt Express' Position

Grain Belt Express states that the western Kansas converter station of the Project will be interconnected with the transmission grid of the SPP RTO, and the Project will have interconnection and delivery points with the MISO transmission grid in northeast Missouri and with the PJM transmission grid in western Indiana. GBX Ex. 2.0 at 24-35; GBX Ex. 11.0 at 66-67. The purpose of these interconnection processes is to ensure that the Project's interconnections with the existing transmission grids comply with all local, regional and federal reliability standards and requirements. GBX Ex. 11.0 at 67. Grain Belt Express states that it must enter into definitive interconnection agreements with SPP, MISO and PJM before it energizes the Project, and is willing to commit that it will not energize the Project until it has obtained the necessary interconnection agreements. *Id*. at 68. Accordingly, Grain Belt Express is willing to have the following requirement included in its CPCN order:

> Prior to energizing the Project, Grain Belt Express will fully comply with the applicable interconnection requirements of, and sign all necessary interconnection agreements with, SPP, MISO and PJM. (GBX IB at 110.)

GBX states that this is the same requirement the Commission adopted in its CPCN order for the Rock Island project (with the text revised to be applicable to Grain Belt Express and to include SPP). GBX Ex. 11.0 at 68. GBX states that no witness for any other party proposed that this requirement should not be adopted, or proposed that the text of the requirement should be revised. GBX IB at 109-110.

b.-x. [Other Parties' Positions]

y. Commission Analysis and Conclusion

As it did in the Rock Island CPCN case, Docket 12-0560, and based on its consideration of the record in this case, the Commission adopts the interconnection agreement requirement, as set forth above, as a condition of the CPCN it is issuing to Grain Belt Express for the Project. In this case, the condition will encompass the necessary interconnection requirements of and agreements with SPP, MISO and PJM. No party opposed or questioned the appropriateness of this requirement.

4. Conditions Relating to Protection and Restoration of Landowner Properties from Potential Impacts of Construction

a. Grain Belt Express Position

As described in greater detail in §V.F of this Order, Grain Belt Express has entered into an Agricultural Impact Mitigation Agreement ("AIMA") with the Illinois Department of Agriculture, which, by its terms, will be incorporated into each easement agreement for the Project in Illinois. GBX Ex. 7.0 at 24; GBX Ex. 7.15 (AIMA). In addition, in the Rock Island CPCN order, the Commission adopted a set of requirements that Rock Island must follow to avoid, mitigate and remediate adverse impacts on agricultural properties from construction of the Project. Grain Belt Express proposes that this same set of requirements be specified in the CPCN order for the Project. These requirements, which are set forth on GBX Exhibit 7.16, are discussed in greater detail in §V.F of this Order and address prevention, mitigation and remediation of soil compaction; identifying, avoiding impacts with, and repairing or replacing drainage tiles; and avoiding use of guy wires for structures. GBX IB at 110.

b.-x. [Other Parties' Positions]

y. Commission Analysis and Conclusion

As it did in the Rock Island CPCN case, Docket 12-0560, and based on its consideration of the record in this case, the Commission adopts the requirement that Grain Belt Express be required to follow and utilize the requirements set forth on GBX Exhibit 7.16 to avoid, mitigate and remediate adverse impacts on agricultural properties from construction of the Project. No party opposed or questioned the appropriateness of this requirement. The Commission notes that the actions required of Grain Belt Express pursuant to this requirement, as listed on GBX Exhibit 7.16, are fully consistent with Grain Belt Express' obligations under its AIMA with the Illinois Department of Agriculture.

5. Other Conditions Proposed by CCPO

a. CCPO's Position

b. Grain Belt Express' Position

Grain Belt Express responded to several conditions or requirements proposed by CCPO in its initial brief. CCPO IB at 15-17. GBX states that CCPO's first proposed condition appears to be premised on the assumption that under §8-406.1(i), the

Commission must "order" Grain Belt Express to construct the Project pursuant to §8-503. CCPO IB at 15-16. GBX states that this is not accurate. Section 8-406.1(i) requires a CPCN order for a new high voltage electric service line under §8-406.1 to also include an order "authorizing or directing" the construction of the transmission line and related facilities. In this case, Grain Belt Express has only requested an order pursuant to §8-503 authorizing the construction of the Project. Application ¶87. Therefore, GBX states, CCPO's statement that "GBX will be ordered to build the Grain Belt Express Project without a showing of the ability to finance the proposed construction" (CCPO IB at 16) is incorrect. However, Grain Belt Express states that it understands that the conditions and requirements imposed on its CPCN are also applicable to the §8-503 authorization. GBX Ex. 1.0 at 58-59; GBX RB at 63.

CCPO's second proposal is that Grain Belt Express be required to prove it has secured financing for the proposed construction before attempting to acquire easements. CCPO IB at 15-16. GBX states that CCPO does not give any justification for this proposed requirement, other than the supposition that Grain Belt Express might acquire easements but not have sufficient funds to compete the Project. *Id*. GBX states that CCPO's proposed requirement would materially modify the financing condition that the Commission adopted in Docket 12-0560 for Rock Island, and that Grain Belt Express and Staff recommend be adopted here. GBX states that, most importantly, CCPO's proposed requirement is not needed to protect landowners. GBX states that as CCPO itself points out, Grain Belt Express' President, Mr. Skelly, committed in testimony that if Grain Belt Express were to acquire easements but then not go forward to construct the Project, Grain Belt Express will release the easements. *Id.*, citing Tr. 364. Therefore, consistent with Mr. Skelly's testimony, if the Project is terminated, all easements that have been acquired will be released. GBX RB at 63-64.

CCPO's third proposed requirement is that "the easement should be restricted to GBX." CCPO IB at 16. Grain Belt Express states that (as discussed in §V.E of this Order, below), its form of Easement Agreement limits the use of the easement to an electric transmission line. Therefore, the easement cannot be sold or subleased to other entities for the installation of other types of facilities or other uses. Grain Belt Express states, however, that the easement should not be "restricted to GBX," because scenarios can be envisioned, over the long life of the transmission line, in which it could be sold to a new owner. (GBX states that the Commission would need to approve such a transaction, and, in order to operate the installed transmission facilities, the new owner would need to obtain its own CPCN from the Commission. In either proceeding, the Commission could consider and impose such conditions and requirements on the transaction and/or the new owner's CPCN as it deemed appropriate. GBX RB at 64.) GBX states that as long as the Easement Agreement precludes any uses of the easement other than the electric transmission line, the easement grantor is adequately protected. GBX RB at 64.

CCPO's final proposed requirement is that Grain Belt Express should be required to post a bond or other financial security to provide financing for costs of the removal of the line when its operational life is concluded, and that it should be required to increase the amount of the bond or security annually. CCPO IB at 17. Grain Belt Express opposes this proposal. First, as Mr. Skelly and Mr. Lawlor testified, Grain Belt Express is unaware of any electric transmission line ever being retired and dismantled. Tr. 172-173, 288. Mr. Skelly explained that transmission lines don't post security because

transmission lines don't get taken out of service. Tr. 238. GBX acknowledges that CCPO might argue that this is because virtually all transmission lines constructed historically have been constructed by incumbent utilities and similar providers; however, Grain Belt Express submits that transmission lines remain operational not based on who owns them, but because they remain valuable, useful assets. Further, GBX states that in the unlikely event that Grain Belt Express were to encounter financial difficulties at some point in the operating life of the Project, and have to undergo a bankruptcy or financial restructuring, the transmission line would remain a valuable and useful asset, which could be sold to a new owner who would continue to operate it; or it could continue to be operated by Grain Belt Express, on a profitable basis, after financial restructuring is completed. GBX RB at 64-65.

Grain Belt Express notes that, Commissioner Staff financial witness Janis Freetly, when asked if it would be prudent to require Grain Belt Express to post a bond for decommissioning the line, stated that she was not familiar with any decommissioning of a transmission line, and therefore did not think it a likely scenario that would need to be guarded against or financed for. Tr. 338-339; GBX RB at 65.

Grain Belt Express states that a similar proposal was made, in intervenor testimony, in the Rock Island CPCN case, Docket 12-0560 (Order in Docket 12-0560 at 99). In that case, the Commission did not adopt the proposal. As described in the Docket 12-0560 order, Rock Island provided testimony that Clean Line had found, in a study done for another of its projects, that in the event of the need to dismantle the facilities, the proceeds that could be obtained from the sale of scrap metal and parts and the sale of reusable equipment (including converter station equipment and components) exceeded the estimated cost of dismantlement and restoration of the line. Order in Docket 12-0560 at 63. Grain Belt Express believes it is a valid consideration, in evaluating CCPO's proposed requirement, that in the unlikely event the transmission line needed to be dismantled, the sale of scrap metal and parts and reusable equipment and components would yield significant revenues that could be used to cover the costs of dismantlement of the transmission line and restoration of the land. GBX RB at 65-66.

c. Commission Analysis and Conclusion

Based on its consideration of the evidentiary record and the arguments of the parties, the Commission concludes that it is not necessary to adopt or impose the additional conditions proposed by CCPO. With respect to the first such condition, the Commission notes that Grain Belt Express, through its President, has already committed that if the Project were to be terminated, Grain Belt Express will release all easements that it has obtained. The Commission views that the specific mechanics and procedures for effectuating such releases, should the need arise, should be a matter to be set forth in the easement agreement as negotiated between Grain Belt Express and landowners. With respect to the second condition, the record indicates that Grain Belt Express' easement agreement limits the use of the easement to the construction and operation of Grain Belt Express' electric transmission line, as requested by intervenors. With respect to the third condition proposed by CCPO, the record shows that there is no need to require Grain Belt Express to post a bond or other financial security for the decommissioning and dismantlement of the transmission facilities. The record shows that transmission facilities are long lived and not likely to cease operations and be abandoned in place, although they can be sold to a new owner. Were Grain Belt Express, at some future time, to sell the Project, the transaction would have to be

approved by the Commission, and the new owner would need to obtain a CPCN from this Commission to operate the line.

F. Other Considerations Under §8-406.1

1. Grain Belt Express' Position

Grain Belt Express' Response to CCPO

Grain Belt Express states that CCPO's arguments set forth in this section of its Initial Brief repeat arguments made in §III and IV.A through D of its brief relating to Grain Belt Express' compliance with the §8-406.1 criteria. CCPO IB at 17-18. CCPO's point here is, essentially, that an applicant that is not a public utility cannot satisfy the requirements of §8-406.1(f)(1), such as the "ability to manage construction" criterion. Grain Belt Express disagrees. GBX states that the applicant's ability to satisfy this and the other §8-406.1(f) criteria should be based on the facts presented, such as the experience of its management team and contractors, its financing plan, customer interest in its proposed project, whether the project will promote the development of an effectively competitive electricity market and the other benefits it will provide to the public, and so forth – not simply on whether or not the applicant is an existing public utility. GBX RB at 67.

Grain Belt Express' Response to IAA

Grain Belt Express responded to IAA's argument that the Commission should not grant a CPCN to Grain Belt Express because its sister company, Rock Island, having obtained a CPCN in Docket 12-0560, is now encountering difficulties with the Iowa regulatory process for approval of that project. IAA IB at 41-42. GBX states that the issue Rock Island has encountered in Iowa is this: Rock Island filed a petition with the Iowa Utilities Board ("IUB") for the necessary authority for the Rock Island project in Iowa (referred to as a "franchise petition"). Tr. 357. Rock Island sought to have the IUB conduct a proceeding to determine the need for the Rock Island project (*i.e.*, a similar proceeding and determination to a CPCN case under §8-406 or §8-406.1 before this Commission) before requiring Rock Island to go through the right-of-way acquisition process for the project in Iowa. (This is referred to as "bifurcation." Tr. 357.) However, the IUB decided that it would not follow this approach, but rather would require Rock Island to go through the right-of-way acquisition process before the IUB would proceed with the "need" determination. Tr. 240. IAA asserts that "Rock Island had a different understanding of the regulatory process than did the Iowa Utilities Board." IAA IB at 42. However, Mr. Skelly testified that prior to filing the franchise petition and the request for bifurcation with the IUB, Rock Island had research conducted, consulted with counsel, and evaluated whether bifurcation is permissible and feasible in Iowa. This investigation included obtaining a letter from the general counsel of the IUB stating that bifurcation is feasible. Tr. 357. Therefore, Rock Island believed it was appropriate and feasible to request bifurcation. Tr. 358; GBX RB at 67-68.

Grain Belt Express states that Rock Island is now working to understand the IUB's specific requirements for the amount of land rights that must be acquired and to determine the appropriate schedule to move the project and the proceeding forward in Iowa. GBX states that Rock Island has already acquired about 15% of the right-of-way for the project in Iowa. Tr. 361-362. While it is working to ascertain the appropriate

schedule and the amount of right-of-way acquisition that should occur prior to a "need" determination, Rock Island is continuing to work on other necessary aspects of the project, including completing the RTO interconnection studies and processes, working with potential customers at both ends of the line, and conducting various environmental and biological studies and surveys along the route. Tr. 359, 926-927. Grain Belt Express states that Rock Island is committed to proceeding with the Rock Island project, and there is no basis to criticize its efforts in this regard. GBX RB at 68-69.

Grain Belt Express' Response to LACI

Grain Belt Express states that this section of its Initial Brief, LACI provides a long, academic discussion of eminent domain law, the apparent point of which is to argue that the Grain Belt Express Project does not meet the "public use" requirement that LACI asserts must be met for the taking of private property through condemnation. LACI IB at 37-44. GBX states that LACI's arguments are misplaced in numerous respects. GBX RB at 69.

Grain Belt Express states that, first, this is not an eminent domain case, and so LACI's argument is premature. Grain Belt Express has not requested eminent domain authority in this proceeding. Application ¶11. GBX states that in order to obtain eminent domain authority to acquire easements on specific landowner properties, it will need to file one or more separate proceedings with the Commission pursuant to §8-509 of the Act and obtain rulings authorizing it to utilize eminent domain to acquire easements on those properties. GBX states that §8-509 specifies that eminent domain authority may be granted "where necessary for the construction of" a project that the Commission has approved. In those §8-509 proceedings, Grain Belt Express will need to demonstrate that it has satisfied the criteria the Commission has established and applied for determining that the use of eminent domain is "necessary for the construction" of the Project. GBX RB at 69.

Second, Grain Belt Express states that, contrary to LACI's contention, the granting of a CPCN to construct the Project does not deprive landowners of any property rights. Specifically, a §8-406.1 proceeding neither confers property rights on the applicant nor deprives landowners of their protected property interests. GBX cites the following cases: *Adams County Property Owners & Tenant Farmers v. ICC*, 2015 IL App (4th) 130907, §51 (appeal from the order in the Illinois Rivers Project §8-406.1 proceeding, Docket 12-0598; the Appellate Court held that "the underlying proceedings before the Commission neither conferred property rights on ATXI nor deprived landowners of their protected property interest"); *Zurn v. City of Chicago*, 389 Ill. 114, 132 (1989) ("No property or property rights of the landowner are taken, nor are such rights affected by anything which occurs in the hearing before the commission for a certificate of convenience and necessity"); *Illinois Power Co. v. Lynn*, 50 Ill. App. 3d 77, 81 (4th Dist. 1977) ("The hearing [before the Commission] was on the reasonableness of the utility's *plans* and could not confer property rights" (emphasis in original)). GBX states that LACI has cited no authority in support of its contention that the grant of a CPCN for the Project will place a "cloud" on landowners' properties that deprives them of their property rights without due process and compensation. LACI IB at 37. GBX states that the law just cited knocks out the fundamental premise of LACI's argument at pages 37-44 of its Initial Brief. GBX RB at 69-70.

Third, Grain Belt Express states that landowners whose property is crossed by

the route the Commission approves in its order in this docket are not in any imminent danger of an eminent domain proceeding or a condemnation action. Grain Belt Express has not yet started to contact landowners in Illinois to negotiate the acquisition of easements. Tr. 141-142, 169. In §8-509 cases, the Commission typically requires the utility to demonstrate that it has had numerous contacts with landowners, made offers, and engaged in extensive negotiations, as part of determining that the utility has met the criteria the Commission applies in determining whether eminent domain authority is "necessary." GBX states that engaging in such contacts and negotiations may take a significant amount of time, before Grain Belt Express would be in a position to file any §8-509 applications (assuming any are needed). Moreover, Grain Belt Express states that even if it were to request and receive eminent domain authority from the Commission, it will still have strong incentives not to file condemnation actions, but rather to continue to attempt to acquire the easements through negotiations: condemnation actions are expensive to litigate, take time to litigate to judgment (often 6 to 12 months), and for the latter reason can delay the start or completion of the Project. GBX RB at 70-71.

Fourth, Grain Belt Express states that LACI's contention that the Project does not meet the "public use" requirement for eminent domain that LACI claims is established by various court decisions it cites (LACI IB at 38-42) is incorrect. GBX notes that Mr. Berry presented extensive testimony to show that the Project and the service it will provide will be "for public use," and this evidence was not rebutted by any other witness. GBX Ex. 11.0 at 46-66. GBX states that although the specifics of the two projects are different in various respects, Mr. Berry's testimony is essentially the same evidence that Rock Island presented in Docket 12-0560 to show that the Rock Island project and the service it provides will be "for public use," and on the basis of which the Commission found that the Rock Island project satisfied the public use standard. Order in Docket 12-0560 at 9-17 and 28. GBX states, further, that the grant of a CPCN to Grain Belt Express for the Project will make Grain Belt Express a public utility as defined in §3-105 of the Act. Moreover, in granting a CPCN for the Project, the Commission will necessarily have found that construction of the Project will promote the public convenience and necessity, as specified in §8-406.1(f). GBX RB at 71.

Grain Belt Express states that §8-509, the eminent domain section, provides that eminent domain authority may be granted "where necessary for the construction" of facilities that have been authorized under §8-406.1 or §8-503. Further, §8-509.5 of the Act (220 ILCS 5/8-509.5) specifies that "Notwithstanding any other provision of this Act, any power granted under this Act to acquire property by condemnation or eminent domain is subject to, and shall be exercised in accordance with, the Eminent Domain Act." Finally, the Eminent Domain Act specifies that:

> [I]f the exercise of eminent domain authority is to acquire property for private ownership or control, or both, then the condemning authority must prove by clear and convincing evidence that the acquisition of the property for private ownership or control is (i) primarily for the benefit, use, or enjoyment of the public and (ii) necessary for a public purpose.
>
> * * * * *
>
> Evidence that the Illinois Commerce Commission has granted a certificate or otherwise made a finding of public convenience and necessity for an

> acquisition of property (or any right or interest in property) for private ownership or control (including, without limitation, an acquisition for which the use of eminent domain is authorized under the Public Utilities Act, the Telephone Company Act, or the Electric Supplier Act) to be used for utility purposes creates a rebuttable presumption that such acquisition of that property (or right or interest in property) is (i) primarily for the benefit, use, or enjoyment of the public and (ii) necessary for a public purpose. (735 ILCS 30/5-5-5(c).) (GBX RB at 71-72.)

Grain Belt Express states that the applicable provisions of the Act and the Eminent Domain Act incorporate the "public use" requirement that LACI discusses, and issuance of a CPCN to the Project will establish a rebuttable presumption that the public use/public purpose requirement is met. GBX states that this is another reason why LACI's argument in this case is premature: the Eminent Domain Act gives the landowner the right to rebut the presumption that the acquisition of the property for a project authorized under the Public Utilities Act is primarily for the benefit, use or enjoyment of the public and is necessary for a public purpose. GBX states that with regard to the *Kelo* case cited by LACI (LACI IB at 41-42), the Illinois Eminent Domain Act was substantially revised *after* the *Kelo* decision, as LACI notes (LACI IB at 42-43) to (among other things) conform the law to the *Kelo* principles, including "requir[ing] a higher standard of proof by a condemning authority if a taking is for private ownership and control." LACI IB at 42-43. GBX states that LACI accurately cites §5-5-5(c) of the Eminent Domain Act for this proposition; but as quoted directly above, §5-5-5(c) includes specific provisions for meeting this test in the case of condemnations for projects approved pursuant to the Public Utilities Act. GBX RB at 72.

Grain Belt Express also points out that the *Kelo* case and the Illinois case of *Southwestern Ill. Dev. Auth. v. National City Environmental, L.L.C.*, 199 Ill. 2d 225 (2002), cited by LACI, both involved condemnations by a governmental entity in which the property was to be taken in fee and then transferred to a private entity for a completely different use than the condemnee's use of the property (in *Kelo*, it was for the destruction of the condemnee's house and the construction of a new commercial facility on the property). In contrast, in this case, GBX would be condemning (should that prove to be necessary) solely to acquire an easement, with the landowner retaining fee title to the property and allowed to continuing farming in the easement area. Further, the U.S. and Illinois Constitutions do not prohibit the taking of private property through eminent domain; rather, they prohibit the taking of private property through eminent domain <u>without due process and just compensation</u>. U.S. Constitution, Amendments V and XIV; Illinois Constitution, Art. I, §2 and 15. Grain Belt Express will not be obtaining or taking any easements without just compensation. GBX RB at 72-73.

LACI's final argument in this section of its Initial Brief is that a decision by the Commission that Grain Belt Express can receive a CPCN pursuant to §8-406.1 would be so arbitrary as to violate the substantive due process rights of the landowners, because Grain Belt Express is not a public utility. LACI IB at 43-44. GBX states that this argument is simply bootstrapping from LACI's argument that Grain Belt Express was not entitled to file its Application pursuant to §8-406.1. GBX states that LACI cites no authority for the assertion that landowners have "substantive due process rights" that would be violated by issuance of a CPCN. GBX RB at 73.

2.-x. [Other Parties' Positions]

y. Commission Analysis and Conclusion

Based on its consideration of the record and the parties' arguments, the Commission finds nothing in the arguments presented by CCPO, IAA and LACI in this section of their briefs that warrants any different findings or conclusions that the Commission has reached in other sections or on other issues in this Order. With respect to LACI's arguments, the Commission finds them to be premature (as Grain Belt Express has not requested eminent domain authority in this case), and not well grounded in authority. It appears to the Commission that its findings and conclusions that must be made in this case to issue a CPCN pursuant to §8-406.1, the determinations that the Commission will have to make in order to grant Grain Belt Express, pursuant to §8-509, to acquire easements through the use of eminent domain (if requested), and the determinations that would have to be made in a condemnation action pursuant to §5-5-5(c) of the Illinois Eminent Domain Act, will result in the "public use" requirement that LACI discusses being established.

V. Proposed Route of the Project in Illinois and Land Acquisition

A. Description and Development of the Proposed Route

1. Grain Belt Express' Position

Grain Belt Express states that in Illinois, the Project will consist of two different transmission line sections: (1) the HVDC section (the "DC Section") from the Mississippi River crossing in Pike County to the eastern converter station located near West Union in Clark County, Illinois, and (2) the Alternating Current section (the "AC Section") from the eastern converter station into Indiana to terminate at AEP's Sullivan/Breed substation in Sullivan County, Indiana. GBX Ex. 7.0 at 2; GBX Ex. 2.0 at 5-6; GBX IB at 111. The DC Section, in its entirety, will consist of an approximately ±600 kV HVDC transmission line that runs from the western converter station in Ford County, Kansas to the eastern converter station near West Union in Clark County, Illinois. GBX Ex. 2.0 at 5; GBX 8.0 at 4-5; GBX IB at 111. The DC Section will span approximately 202 miles in Illinois, entering Illinois at the Mississippi River crossing in Pike County. GBX Ex. 7.0 at 2; GBX IB at 111. From the Mississippi River crossing, the line will travel in a general southeasterly direction through Pike, Scott, Greene, Macoupin, Montgomery, Christian, Shelby, Cumberland, and Clark Counties. GBX Ex. 8.4; GBX Ex. 8.5 at 1; GBX IB at 111. The DC Section will end at the eastern converter station near West Union in Clark County, Illinois. GBX Ex. 7.0 at 2; GBX Ex. 8.0 at 4; GBX IB at 111. The AC Section will consist of one double circuit 345 kV AC transmission line that will run from the eastern converter station to the Sullivan/Breed substation in southwestern Indiana. GBX Ex. 2.0 at 5-6; GBX IB at 111. The AC Section will span approximately 3.6 miles in Illinois before crossing the Illinois-Indiana border. GBX Ex. 2.0 at 5; GBX IB at 112. The line will then run another 1.6 miles in Indiana before terminating at the Sullivan/Breed substation. GBX Ex. 2.0 at 5-6; GBX IB at 112.

Grain Belt Express explains that the Proposed Route (and Alternate Route) of the Project were developed through a detailed and comprehensive process conducted by an interdisciplinary Routing Team comprised of representatives from Grain Belt Express, the Louis Berger Group, Inc., and POWER. GBX IB at 112. GBX states that

the Routing Team members have experience in transmission route planning and selection; natural resource impact assessment; land use assessment and planning; cultural resource identification and assessment; impact mitigation; and transmission line engineering, design and construction. GBX Ex. 7.0 at 5-6; GBX Ex. 8.0 at 4-5; GBX 8.2 at 28, 221-222, Appendix B; GBX IB at 112. Grain Belt Express responded to LACI's argument that Mr. Lawlor and Mr. Gaul have no agricultural education or experience. LACI IB at 44-46. GBX states that Mr. Lawlor and Mr. Gaul were part of an interdisciplinary routing team that worked in conjunction to develop the Proposed Route. GBX RB at 74. GBX states that Mr. Lawlor's responsibilities with Grain Belt Express include overseeing the siting process, regulatory permits and public outreach. He has personal experience in developing wind energy projects (which, clearly, involve potential impacts to agricultural properties) and managing transmission policy in the Midwest region. Mr. Lawlor was involved in siting the Project in all four states, and in this process consulted with numerous organizations, including representatives of agricultural, environmental and conservation organizations. GBX Ex. 7.0 at 1, 12-13; GBX RB at 74. GBX also states that Mr. Gaul has experience in siting and permitting transmission projects, including in other agricultural states such as Kansas and Missouri. GBX Ex. 8.0 at 1-2; GBX RB at 74. GBX states, however, that Mr. Lawlor and Mr. Gaul were not the only individuals involved in the Route Selection Study, but rather were part of a 33-person routing team that has ample experience in transmission line development through agricultural areas. GBX Ex. 7.0 at 6; GBX Ex. 8.2 at 28, 221-222; GBX IB at 112; GBX RB at 74.

Grain Belt Express states that the Routing Team conducted a Route Selection Study to identify the Proposed Route that best minimizes the overall effect of the transmission line on the natural and human environment, avoids unreasonably circuitous routes and unreasonable costs, and minimizes special design requirements. GBX Ex. 8.2 at 28; GBX Ex. 8.11 at 9; GBX IB at 112. GBX states that the Routing Team developed General Routing Guidelines and Technical Guidelines that set forth principles to guide the development of alignments considered in the Route Selection Study. GBX Ex. 8.2 at 28; GBX IB at 112. The General Routing Guidelines establish a set of principles and guide the development of alignments with respect to area land uses, sensitive features, and considerations of economic reasonableness. GBX Ex. 8.2 at 28; GBX IB at 112. The General Routing Guidelines include maximizing distance and impacts on residences, schools, hospitals and other community facilities; avoiding the need for removing structures; minimizing agricultural, environmental, cultural and visual impacts; and minimizing route length, circuity, cost and special design requirements. GBX Ex. 8.2 at 28-29; GBX IB at 112. The Technical Guidelines provide technical limitations related to the physical limitations, design, ROW requirements, or reliability concerns of the Project infrastructure. GBX Ex. 8.2 at 29; GBX IB at 112-113. The Technical Guidelines include minimizing the crossing of other transmission lines; maintaining a safe distance of separation when paralleling transmission lines; minimizing turning angles and placing structures on sloping soils; and maintaining a safe operational distance from existing wind turbines. GBX Ex. 8.2 at 28-29; GBX IB at 113.

Grain Belt Express states that the Routing Team also identified Routing Constraints, which are areas that should be avoided to the extent feasible. GBX Ex. 8.2 at 31; GBX IB at 113. The Routing Constraints were further broken down into large-area constraints and point-specific constraints. GBX Ex. 8.2 at 31; GBX IB at 113. GBX

explains that large-area constraints included urban areas; federal and state lands; conservation lands; areas near airports and airstrips; large recreational sites; and large lakes, reservoirs and wetlands. GBX Ex. 8.2 at 31; GBX IB at 113. Point-specific constraints include residences; commercial buildings; quarries; irrigation facilities; specific historic buildings and sites; specific sites of threatened, endangered or rare species; and small wetlands or waterbodies. GBX Ex. 8.2 at 31-32; GBX IB at 113.

Grain Belt Express states that, additionally, the Routing Team considered Routing Opportunities, which are locations where the proposed transmission line might be located with less disruption to surrounding land uses and the natural and cultural environment. GBX Ex. 8.2 at 32; GBX IB at 113. GBX states that Routing Opportunities typically include other linear infrastructure and utility corridors, such as existing electric and gas transmission networks, rail lines and roads, but may also include reclaimed lands or unused portions of industrial or commercial areas. GBX Ex. 8.2 at 32; GBX IB at 113. GBX explains, however, that while paralleling existing linear infrastructure can reduce land use and visual impacts, utilizing a Routing Opportunity may not always be desirable. GBX Ex. 8.2 at 32-33; GBX Ex. 8.11 at 9; GBX IB at 113. For example, a route that parallels a roadway is likely to have a greater impact on residences, as residences are generally located adjacent to and accessed via roads. GBX Ex. 8.2 at 33; GBX Ex. 8.11 at 9; GBX IB at 113.

Grain Belt Express described the route development process, which involved the Routing Team developing the Proposed Route through iterative phases, starting with broad geographical areas and then narrowing the geographic focus down to specific study areas, until the final Proposed Route was identified. GBX Ex. 8.0 at 5-8; GBX IB at 114. GBX states that each iterative phase involved developing routes and route segments; reviewing routes and route segments with respect to information gathered from state and federal regulatory agencies, environmental organizations, community leaders, or the general public; and revising the routes with more specific alignments based on the information obtained. GBX Ex. 8.0 at 5; GBX IB at 114. The major phases of route development involved successively narrowing the choices under consideration from the earliest Conceptual Routes, to Potential Routes, to Alternative Routes, and ultimately, to the selection of the Proposed Route. GBX Ex. 8.2 at 13; GBX IB at 114.

Grain Belt Express explains that the process began with the identification of a Study Area for the Project, generally defined as the geographic area encompassing the two end-point converter stations in Ford County, Kansas, and Clark County, Illinois. GBX Ex. 7.0 at 6; GBX Ex. 8.0 at 5; GBX Ex. 8.2 at 43; GBX IB at 114. Figure 4-1 in GBX Ex. 8.2 is a map of the entire Study Area that was considered for the Project. GBX states that data gathering and route development efforts generally focused on the area within the identified Study Area. GBX Ex. 8.0 at 5; GBX IB at 114. Initial route development efforts started with the identification of large-area constraints and Routing Opportunities across the entire project Study Area. GBX Ex. 8.0 at 5; GBX Ex. 8.2 at 43; GBX IB at 114. GBX states that during this phase, the Routing Team held 14 Roundtable meetings in Illinois with local officials, economic development representatives, and community leaders to obtain information. GBX Ex. 7.0 at 7; GBX Ex. 8.2 at 14; GBX IB at 114. At each Roundtable, the Routing Team provided information on the Project and the attendees provided specific information about their communities to aid the route development process, such as sensitive features, existing infrastructure, and planned development in their communities. GBX Ex. 7.0 at 12; GBX

Ex. 8.0 at 10; GBX IB at 114. GBX states that these meetings provided the Routing Team with valuable insight for the route development process. GBX Ex. 7.0 at 12; GBX IB at 115. GBX states that, using this information, along with information resulting from coordinating with regulatory agencies and other government officials, the Routing Team developed a range of Conceptual Routes that focused its early data gathering, field reconnaissance, and public outreach efforts. GBX Ex. 8.0 at 5-6; GBX Ex. 8.2 at 14; GBX IB at 115. GBX explains that the Conceptual Routes are broad routing "concepts" that typically avoid large area constraints or incorporate notable Routing Opportunities. GBX Ex. 8.2 at 45; GBX IB at 115. GBX states that during the route development process, the Conceptual Routes in the southern and central portions of the Study Area were removed from further consideration due to challenges associated with a range of routing constraints, such as: large areas of Federal land ownership, large complexes of reservoirs and recreational lakes, dense and interspersed development, and a lack of suitable locations to cross the Mississippi River. GBX Ex. 8.0 at 6; GBX Ex. 8.2 at 60-62; GBX IB at 115.

Grain Belt Express explains that the remaining Conceptual Routes extended northeast from Ford County, Kansas, crossed the Missouri River south of St. Joseph, Missouri, crossed the Mississippi River north of St. Louis, and continued across Illinois on paths south of Springfield, to the eastern converter station in Clark County, and then on to the interconnection point with the PJM grid at the Sullivan/Breed Substation. GBX Ex. 8.0 at 6; GBX Ex. 8.2 at 14; GBX IB at 115. GBX states that the Routing Team continued to revise and refine the remaining Conceptual Routes in the northern portion of the Study Area, resulting in a network of Potential Routes. GBX Ex. 8.0 at 6; GBX Ex. 8.2 at 14; GBX IB at 115.

Grain Belt Express explains that due to the multi-state nature of the Project, Proposed Routes first were identified in Kansas and Missouri, including determination of the Mississippi River crossing point from Missouri into Illinois. GBX Ex. 8.0 at 6-7; GBX IB at 115. GBX states that the Routing Team considered five potential Mississippi River crossings. GBX Ex. 8.2 at 65; GBX IB at 115. Figure 4-6 of GBX Ex. 8.2 is a map of the five river crossings that were considered. GBX states that initial siting efforts focused on locations along the river with existing infrastructure crossings; however, those sites were either encumbered by residential and commercial development, existing infrastructure, sensitive cultural and recreational resources, or environmentally sensitive public lands. GBX Ex. 8.2 at 65; GBX IB at 115-116. Thus, the Routing Team also considered an array of crossing locations where no existing infrastructure currently crosses the river. GBX Ex. 8.2 at 65; GBX IB at 115-116. GBX states that for these crossings, the team considered a variety of factors, including (but not limited to): potential for impacts on sensitive public land resources, existing irrigation infrastructure, sensitive species habitats, historic resources, as well as the technical design requirements of the crossing itself. GBX Ex. 8.2 at 65; GBX IB at 116. GBX explains that four of the five crossing points were eliminated by the Routing Team for reasons such as potential impacts to endangered species, increased vegetation clearing requirements, close proximity to towns, and potential impacts to cultural sites. GBX Ex. 8.2 at 65-69; GBX IB at 116, note 109. GBX states that the Routing Team ultimately selected the South Saverton crossing between Mississippi River miles 299 and 300, approximately 6.5 miles west of New Canton, Illinois in Pike County. GBX Ex. 8.0 at 7; GBX Ex. 8.2 at 69; GBX IB at 116. Figure 4-7 in GBX Ex. 8.2 is a map of the South Saverton Mississippi River crossing. GBX states that this crossing location was

preferred by United States Army Corp of Engineers, St. Louis District, and had the fewest conflicts associated with current land use out of all the crossings considered. GBX Ex. 8.2 at 69; GBX IB at 116. GBX states that from an engineering perspective, the South Saverton crossing offers flexibility in alignment of the structures and transmission line and will allow for reduced span length and structure height. GBX Ex. 8.2 at 71; GBX IB at 116.

Grain Belt Express addressed LACI's argument that the Mississippi River crossing was developed in conjunction with the "rejected" Missouri route. LACI IB at 44-46. Grain Belt Express explained that while the Mississippi River crossing point was identified in conjunction with the development of the Missouri route, this does not make the Proposed Route flawed. The Project route through Kansas and Missouri was determined before the Proposed Route in Illinois, but the selection of the Mississippi River crossing was not determined solely by the Missouri route; GBX considered Illinois routing criteria as well. GBX Ex. 8.0 at 6-7; GBX Ex. 8.2 at 65; GBX RB at 74-75. GBX states that, more importantly, the determinative factor in selecting the Mississippi River crossing point was identifying the location that best addressed specific criteria and concerns, and had the fewest constraints, for crossing the river – the crossing point selected is not simply the point at which the Missouri portion of the route reaches the river. GBX RB at 75.

Grain Belt Express states that the identification of the Mississippi River crossing location focused further route network refinements and revisions. GBX Ex. 8.2 at 71; GBX IB at 116. The Routing Team reviewed information received from the Roundtable meetings, conducted additional route reconnaissance, gathered input from regulatory agencies, and conducted comparative reviews of route segments with similar starting points and endpoints, as part of the route network refinement process. GBX Ex. 8.2 at 71; GBX IB at 116. The Routing Team identified the Potential Routes, which consisted of 74 interconnected route segments, extending from the Mississippi River to the Indiana border. GBX Ex. 8.2 at 71; GBX IB at 116. The Illinois Potential Route Network is depicted in Figure 4-8 in GBX Ex. 8.2.

Grain Belt Express states that the Potential Routes were revised and refined through coordination with state and federal regulatory agencies, input collected from the general public at Public Meetings, and through iterative reviews and analysis by the Routing Team. GBX Ex. 8.0 at 6; GBX IB at 117. The Potential Routes were reviewed by state and local planners and elected officials, conservation-focused non-governmental organizations, and other stakeholders in the northern portion of the Study Area. GBX Ex. 7.0 at 13; GBX IB at 117. The Potential Routes also were presented to federal and state regulatory agencies for additional feedback and comment. GBX Ex. 7.0 at 13; GBX IB at 117. Grain Belt Express states that it held dozens of meetings with federal and state regulatory agencies in Illinois, which helped further refine the Potential Routes in advance of the Public Meetings. GBX Ex. 7.0 at 13; GBX IB at 117. GBX states that input from public and government agencies as well as engineering and natural resource considerations were factored into revision of the Potential Routes and removal of some Potential Routes from consideration. GBX Ex. 8.0 at 7; GBX Ex. 8.2 at 73; GBX IB at 117.

Grain Belt Express states that the Potential Routes in Illinois were presented to public officials and members of the general public in the first two rounds of the Public Meetings held in each county in Illinois crossed by a Potential Route(s). GBX Ex. 8.0 at

7; GBX IB at 117. GBX states that the main goal of the Public Meetings was to inform potentially affected landowners and the general public about the Project and to seek their consideration and comment. GBX Ex. 8.0 at 10; GBX IB at 117. Attendees were assisted in locating their property or other features of concern on aerial photography maps displaying the array of Potential Routes under consideration, and were encouraged to submit written comments about their observations, recommendations or concerns. GBX Ex. 8.0 at 10; GBX IB at 117. GBX states that following the first and second rounds of Public Meetings, the Routing Team assembled and reviewed the input gathered and made revisions to the Potential Routes. GBX Ex. 8.0 at 7; GBX Ex. 8.2 at 73; GBX IB at 117. Grain Belt Express revised the route as a result of comments it received and the revisions are highlighted on the map contained as Figure 4-9 in GBX Ex. 8.2.; GBX IB at 118, note 112.

Grain Belt Express responded to LACI's argument that it gave little consideration to farming operations when developing the Proposed Route. GBX states that it considered farming operations as part of the routing criteria that were developed and used in the Route Selection Study. GBX states that one of the goals of the Route Selection Study was to develop a Proposed Route that minimized the overall effect of the transmission line on the natural and human environment, which includes minimizing impacts on agricultural land. GBX Ex. 8.2 at 25; GBX IB at 112; GBX RB at 75. Grain Belt Express states that it developed Routing Guidelines, Routing Constraints and Routing Opportunities to guide the development of alignments with respect to area land uses, sensitive features and considerations of economic reasonableness. GBX Ex. 8.2 at 28, 31-32; GBX IB at 112-113; GBX RB at 75. These criteria sought to minimize impacts on agricultural use, including the operation of irrigation infrastructure. GBX Ex. 8.2 at 32-33; GBX Ex. 8.0 at 5; GBX IB at 112-113; GBX RB at 75. Additionally, Grain Belt Express entered into an AIMA with the Illinois Department of Agriculture which establishes processes and procedures to avoid, minimize and mitigate impacts on farming and agricultural operations. GBX IB at 135-143. Grain Belt Express states, therefore, that it considered agricultural impacts throughout the entire planning and development process for the Project and the Proposed Route. GBX RB at 75-76.

Grain Belt Express also addressed LACI's argument that it did not incorporate stakeholder feedback regarding agricultural impacts. Grain Belt Express described how it gathered, considered and incorporated stakeholder input (including comments regarding agricultural concerns) during each phase of the route selection process. GBX RB at 76. Grain Belt Express notes that LACI cites to a Route Selection Study prepared for the Spoon River Transmission Line on behalf of Ameren Transmission Company (and which is not in the record of this proceeding), for the proposition that GBX failed to include similar stakeholder input regarding the importance of agricultural uses. LACI IB at 46. Grain Belt Express explains that what LACI relies on is just a chart that shows that 12 out of 63 comments received during a mapping exercise referenced agriculture as relevant to the route selection process. ATXI Ex. 8.2, Pt. 2 of 2 at 18, *In re Ameren Transmission Co.*, Docket 14-0514 (filed Aug. 21, 2014); GBX RB at 76. The chart provides no information on how these comments were used. Grain Belt Express states that while it did not provide a breakdown of the number of agricultural-related comments it received, it developed the Proposed Route by collecting input from landowners during the Public Meetings, which were attended by over 3,100 persons and necessarily would include comments regarding agricultural operations. GBX Ex. 7.0 at 13; GBX Ex. 8.0 at 6-7, 10; GBX Ex. 8.2 at 38-41; GBX IB at 117; GBX RB at 76. Overall, GBX held over

300 stakeholder meetings and 27 Public Meetings, sent 17,073 direct mail invitations for Public Meetings, had more than 3,100 attendees at the Public Meetings, and received more than 900 comment cards from the Public Meetings. GBX Ex. 7.0 at 9; GBX Ex. 8.2 at 41; GBX RB at 77. Thus, Grain Belt Express states, it broadly solicited, and received, input on the various routing options from persons in the area, including owners and operators of agricultural properties. GBX RB at 77.

Grain Belt Express explains that the Routing Team compiled the revised Potential Route Network segments into nineteen Alternative Routes. GBX Ex. 8.0 at 7; GBX Ex. 8.2 at 80; GBX IB at 118. GBX provided a map of the Alternative Routes in Figure 4-10 of GBX Ex. 8.2 To facilitate the evaluation and comparison of the Alternative Routes, the Routing Team divided the Study Area across Illinois into four distinct Segments that had similar beginning and end points: Segment 1 (encompassing Alternative Routes A and B), Segment 2 (Alternative Routes C through G), Segment 3 (Alternative Routes H through O), and Segment 4 (Alternative Routes P and Q). GBX Ex. 8.0 at 7; GBX 8.2 at 80; GBX IB at 118. GBX states that the geographic scope of the four Segments is shown on the maps in Section 4 of GBX Ex. 8.2. The Routing Team then assessed and compared the Alternative Routes in each Segment with respect to their potential impacts on natural resources (water resources, wildlife and habitats, special status species, and geology and soils), the built environment (agricultural use, residences, schools, hospitals, houses of worship, other buildings, populated areas and community facilities, aesthetic resources, and cultural resources), and with respect to any noted engineering or construction challenges or opportunities (slopes and elevation, transportation, existing utility corridors, other existing infrastructure). GBX Ex. 8.0 at 7-8; GBX Ex. 8.2 at 79-80; GBX IB at 118. A detailed description of each Alternative Route is contained in Appendix F of GBX Ex. 8.2. GBX states that through this analysis and comparison, the Routing Team identified the best and second best routes in each of the four Segments, which when combined across the four Segments resulted in, respectively, the Proposed Route and an Alternate Route in Illinois for the Project. GBX Ex. 8.0 at 8; GBX Ex. 8.2 at 80; GBX IB at 118.

Grain Belt Express responded to LACI's argument that the Proposed Route has non-paralleling line siting.[9] LACI IB at 44-46, 51. Grain Belt Express notes that LACI acknowledges that the Routing Team considered placing the transmission line along property and section lines, as a preferred approach in order to avoid agricultural impacts. LACI IB at 46. GBX explained that LACI fails to acknowledge that in addition to utilizing linear opportunities along parcel lines, other paralleling opportunities exist, such

[9] Grain Belt Express states that LACI cites to maps in the Route Selection Study as evidence that the Proposed Route cuts diagonally through parcels. LACI IB at 46. GBX states that despite the map set containing 77 pages, LACI only identified 7 map pages as examples of the Proposed Route not following property lines. *Id.*; GBX RB at 77, note 69. Of those 7 pages, 4 actually are of the Alternate Route. LACI IB at 46 (citing GBX Ex. 8.2 at 384, 390, 392, 393); GBX RB at 77, note 69. LACI also cites to Ms. Kleinik Davis' testimony for another example of the Proposed Route traversing diagonally through parcels. LACI IB at 46; GBX RB at 77, note 69. Grain Belt Express states that it addressed Ms. Kleinik Davis' concern about the 90 degree turn on her property at pages 147-148 of its Initial Brief and explained the reason for the need for the turn at that location.

as along existing linear infrastructure and utility corridors. GBX Ex. 8.2 at 32; GBX RB at 77. GBX states that the Proposed Route parallels existing infrastructure, such as transmission lines, pipelines, roads, and rail lines, where possible. GBX Ex. 8.2 at 32; GBX RB at 77. GBX states that in such an instance, the Proposed Route may run diagonally through a parcel in order to follow existing infrastructure. Grain Belt Express states that it solicited information from landowners as to which type of features landowners preferred for parallel alignments. GBX Ex. 8.2 at 32; GBX RB at 77. Further, when developing the Proposed Route, GBX considered not only opportunities, such as parallel alignments, but also took constraints into consideration. GBX Ex. 8.2 at 32; GBX RB at 77-78. GBX states that parallel alignments may not always be optimal if they cause a greater impact on residences (GBX IB at 113) or split farm fields, thus *increasing* impacts on landowners and farming operations (GBX IB at 147-148). Grain Belt Express states that it considered and attempted to place the line along field, parcel or property boundaries where doing so would reduce impacts to land use. GBX RB at 78. Grain Belt Express states, in summary, that it worked with landowners and other stakeholders throughout the route selection process and adequately considered impacts to farming and agricultural operations; and that the Route Selection Study identified the Proposed Route that best minimizes the overall effect of the transmission line on the natural and human environment, avoids circuitous routes and unreasonable costs, and minimizes special design requirements. GBX RB at 78.

2.-x. [Other Parties' Positions]

B. Selection of Proposed Route vs. Alternate Route

1. Grain Belt Express' Position

Grain Belt Express states that after completing, and based on the information gathered in, the route development process, the Routing Team selected the Proposed Route and Alternate Route for the Project in Illinois. GBX IB at 118-119. The Routing Team selected Alternative Route B in Segment 1, Alternative Route C in Segment 2, Alternative Route K in Segment 3 and Alternative Route P in Segment 4 as the Proposed Route. GBX Ex. 8.0 at 11; GBX Ex. 8.2 at 15-18; GBX IB at 119. GBX states that those segments best minimized the impacts on the natural and human environment and historic and cultural resources along the route, while best utilizing existing linear rights-of-way and avoiding non-standard design requirements. GBX Ex. 8.0 at 11; GBX Ex. 8.2 at 15; GBX IB at 119.

Grain Belt Express explains that for Segment 1, Alternative Route B follows along existing roads and field edges through the heavily cultivated floodplain of the Mississippi River and avoids crossing through areas of more dense pivot irrigation. GBX Ex. 8.0 at 11; GBX Ex. 8.2 at 15; GBX IB at 119. Alternative Route B also follows a shorter path than Alternative Route A through forests in the sensitive habitats of the Mississippi River bluffs. GBX Ex. 8.0 at 11; GBX Ex. 8.2 at 15; GBX IB at 119. This will result in the loss of the least amount of potential special-status habitat in an area within 10 miles of known bat hibernacula and timber rattlesnake habitat. GBX Ex. 8.2 at 15; GBX IB at 119. Lastly, Alternative Route B has fewer homes in close proximity (zero residences within 250 feet and 2 residences within 500 feet) and is farther from towns than Alternative Route A. GBX Ex. 8.0 at 11; GBX Ex. 8.2 at 15; GBX IB at 119. GBX states that, overall, Alternative Route B was chosen as the Proposed Route in Segment 1 because it has less impact on agricultural lands and pivot irrigation systems, special-

status species forested habitat, populated areas, and residences. GBX Ex. 8.2 at 15; GBX IB at 119.

Grain Belt Express states that in Segment 2, Alternative Route C is the shortest route of the five Alternative Routes considered and has the fewest residences within close proximity (1 residence within 250 feet and 8 residences within 500 feet). GBX Ex. 8.0 at 11; GBX Ex. 8.2 at 16; GBX IB at 119. Alternative Route C also follows along parcel boundaries for a significant portion of its total length, thereby minimizing impacts on agricultural operations. GBX Ex. 8.0 at 11; GBX Ex. 8.2 at 16; GBX IB at 119-120. Additionally, Alternative Route C requires the least amount of forest clearing in the forest habitats between the Mississippi and Illinois Rivers, which is an important area for habitat conservation due to contiguous forest areas, and is an important area for the Indiana and northern long-eared bat and timber rattlesnake. GBX Ex. 8.0 at 11; GBX Ex. 8.2 at 15-16; GBX IB at 120. GBX states that Alternative Route C crosses the Illinois River along an existing pipeline crossing, avoiding the creation of a new utility crossing location on the river, and continues east through cultivated lands following closely along parcel ownership boundaries. GBX Ex. 8.0 at 11; GBX Ex. 8.2 at 16; GBX IB at 120. Finally, Alternative Route C is the only Alternative Route in Segment 2 that does not cross the estimated obstruction zone for a private airstrip and does not pass directly adjacent to a large Boy Scouts of America camp. GBX Ex. 8.2 at 16; GBX IB at 120.

Grain Belt Express explains that in Segment 3, Alternative Route K follows parcel boundaries to a great extent in the western section of the segment, while avoiding crossing through a planned quarry expansion, the incorporated area of Wenonah, the Hidden Springs State Forest, and the Lincoln Trail Motosports facility. GBX Ex. 8.0 at 12; GBX Ex. 8.2 at 16; GBX IB at 120. Alternate Route K also has fewer small parcels crossed (less than 10 acres), fewer residences within 250 feet (0 residences) and 500 feet (29 residences), and the greatest percent of total length along ownership boundaries. GBX Ex. 8.0 at 12; GBX Ex. 8.2 at 16-17; GBX IB at 120. Additionally, Alternative Route K does not cross any public airfield obstruction zones, unlike the other seven Alternative Routes considered in Segment 3. GBX Ex. 8.0 at 12; GBX Ex. 8.2 at 17; GBX IB at 120.

Finally, Grain Belt Express states that Alternative Route P was selected as the Proposed Route in Segment 4 because it is parallel to an existing high voltage transmission line for its entire length with no diversions necessary to avoid adjacent homes, and it will have less impact to existing pivot irrigation facilities in the Wabash River floodplain than Alternative Route Q. GBX Ex. 8.0 at 12; GBX Ex. 8.2 at 1; GBX IB at 120. GBX states that because Alternative Route P parallels an existing transmission line for its entire length, it would impact forest fragmentation less than the other Alternative Route in this Segment. GBX Ex. 8.0 at 12; GBX Ex. 8.2 at 17; GBX IB at 120. Alternative Route P is also slightly shorter. GBX Ex. 8.0 at 12; GBX IB at 120.

Grain Belt Express summarizes that the Proposed Route for the Project in Illinois is a reasonable and sound route that was derived from a robust route selection process that integrated input from government agencies, local officials, and the general public into the route development, analysis, and selection process. GBX Ex. 8.0 at 13; GBX Ex. 8.2 at 17, 191-205; GBX IB at 120-121. GBX states that given the extensive nature of these efforts, the Proposed Route best minimizes the overall effect of the Grain Belt Express transmission line on the natural and human environments and historic and cultural resources, while avoiding unreasonably circuitous routes, unreasonable costs,

and special design requirements. GBX Ex. 8.0 at 12; GBX Ex. 8.2 at 17, 191-205; GBX IB at 121.

Grain Belt Express notes that Staff witness Mr. Yassir Rashid reviewed the testimony of Grain Belt Express' witnesses on the route development process, Mark Lawlor (GBX Ex. 7.0) and Timothy Gaul (GBX Ex. 8.0), and their related exhibits, including the Illinois Route Selection Study (GBX Ex. 8.2). He testified that on the basis of his review, he would have no objection to Grain Belt Express' Proposed Route. ICC Staff Ex. 1.0 at 3; GBX IB at 121.

Grain Belt Express observes that only Tom Rodgers, witness for Branch Properties expressed any preference for the Alternate Route. Branch Ex. 1.0 at 6. However, it appears that Mr. Rodgers' stated preference for the Alternate Route was due solely to his concerns about a modification to the Proposed Route proposed by another landowner which would modify the Proposed Route on Mr. Rodgers' property. Grain Belt Express has proposed an adjustment to this modification, which Mr. Rodgers stated is an improvement. GBX Cross-Exam. Ex. 1 at 3-4; GBX IB at 121. Mr. Rodgers stated that he did not have any objections to the Proposed Route outside of the vicinity of his property. GBX Cross-Exam. Ex. 1 at 3-4; GBX IB at 121.

2.-x. [Other Parties' Positions]

y. Commission Analysis and Conclusion on Determination and Selection of the Proposed Route

As proposed, the 780-mile transmission line will originate at a converter station in Ford County, Kansas, will traverse through Kansas, Missouri, and will cross the Mississippi River near New Canton, Illinois, whereby the line will enter Illinois. From the Mississippi River crossing, the line will travel through Pike, Scott, Greene, Macoupin, Montgomery, Christian, Shelby, Cumberland, and Clark Counties for approximately 206 miles in Illinois. The line will cross the Illinois-Indiana border in Clark County and ultimately terminate at the Sullivan/Breed Substation in Sullivan County.

Grain Belt Express explained that the Proposed Route was developed through a detailed and comprehensive process by an interdisciplinary and experienced Routing Team. The Routing Team identified Routing Guidelines, Technical Guidelines, Routing Opportunities and Routing Constraints to guide the route selection process. These criteria included minimizing impacts to agricultural land, including impacts to existing irrigation equipment.

Grain Belt Express explained that its Route Selection Study began with identifying broad geographical areas, and through iterative phases, narrowed the areas until the Proposed Route was developed. Grain Belt Express developed the Mississippi River crossing in conjunction with the Missouri route, but selected the crossing as the location that best addressed specific criteria and concerns and had the fewest constraints. In developing the Proposed Route, Grain Belt Express attempted to take advantage of linear opportunities by paralleling existing infrastructure or property lines; however, parallel alignments may not always be optimal. GBX considered and attempted to utilize parallel alignments, so long as it would reduce impacts to land use.

Grain Belt Express explained that at each phase it sought out, obtained and

incorporated stakeholder feedback. Grain Belt Express presented Potential Routes to landowners during the Public Meetings, and solicited feedback regarding impacts to landowners' land. Grain Belt Express incorporated this feedback when selecting the Proposed Route. The Commission notes that Staff stated that Grain Belt Express provided a detailed description of the Proposed Route and the Route Selection Study, which describes Grain Belt Express' route selection methodology.

Having reviewed the record, the Commission finds that the route development process was detailed and comprehensive and gave proper consideration to the routing criteria that were used to develop the routes. Grain Belt Express gave proper consideration to stakeholder input, including impacts to agricultural property. The record shows that the Proposed Route consists of the optimal routes from each of the four Segments in Illinois based on a consideration of numerous routing criteria, including distance from residences, schools, places of worship, commercial buildings, and other structures; avoiding or minimizing impacts to threatened and endangered species and their habitats, forested areas, wetlands, federal, State and local recreation areas, historical or archeologically significant sites, other protected or environmentally sensitive areas, and agricultural uses such as center pivot irrigators; use of property lines and field lines; use of existing infrastructure; as well as other routing factors typically considered by the Commission in transmission line and pipeline certificate cases. The Commission notes that Staff witness has no objection to Grain Belt Express' Proposed Route and no party or witness in this case proposed adoption of the Alternate Route. Nor did any witness or party propose any other alternate routes. Further, apart from Branch Properties and Rex Encore (both of whom only submitted revisions to the Proposed Route in the area adjacent to their properties), no specific deviations from the Proposed Route were proposed by any party. With the resolution of the objections to one segment of the Proposed Route, as described immediately below in §V.C of this Order, the Commission approves the Proposed Route of the Project as set forth in the legal description provided as Grain Belt Exhibit 8.10 and included as Appendix A to this Order.

C. Proposed Revisions to the Proposed Route (Rex Encore and Branch Properties parties)

1. Grain Belt Express' Position

Grain Belt Express described the revisions to the Proposed Route submitted by intervenors. Rex Encore submitted a modification to Grain Belt Express' Proposed Route on June 8, 2015 (the "Rex Encore Modification"). Branch Properties also submitted a modification to the Proposed Route, on June 19, 2015. These were the only two modifications to the Proposed Route that were submitted by any party. GBX IB at 122; GBX RB at 78.

Grain Belt Express states that the properties of Rex Encore and Branch Properties are located near to one another, just east of Highway 96 in Pike County, Illinois. GBX Ex. 8.9; Branch Ex. 1.0 at 9; Rex Encore Exs. 1.2, 1.4; GBX IB at 122. The Rex Encore Modification, which is shown on Exhibit A to Rex Encore's June 8, 2015 Designation of an Alternative Route Segment, initially diverts from the Proposed Route approximately 2,000 feet west of Illinois State Highway 96. It angles to the northeast for nearly 1.7 miles, climbing into the Mississippi River bluffs, and crosses 236th Avenue at a point that would require the removal of an existing barn. The Rex Encore Modification

then angles due east, continuing for another 2 miles, before turning back to the southeast and rejoining Grain Belt Express' Proposed Route west of 290th Street. GBX Ex. 8.8 at 2; Rex Encore Ex. 1.0 at 5; Rex Encore Ex. 1.2; GBX IB at 122.

Grain Belt Express states that it proposed two adjustments to the Rex Encore Modification that would reduce its overall impacts (the "Grain Belt Express Adjustment"). GBX IB at 122-123; GBX RB at 78. GBX states that a light angle just south of 236th Avenue would avoid the need to remove the barn. Additionally, beginning the northeasterly trajectory of the Rex Encore Modification 900 feet farther to the west allows for crossing an existing 115 kV transmission line with a tangent (non-angle) structure. Using a tangent crossing structure at this location would allow the line to span the entire farm field east of the existing 115 kV transmission line, because the next structure would be placed in the Mississippi River bluffs. Moreover, this adjustment shifts the line slightly to the north, farther from an existing home along State Highway 96. GBX states that the Grain Belt Express Adjustment to the Rex Encore Modification reasonably meets the guidelines and criteria set forth in the Route Selection Study. Although it is 0.5 miles longer and would require additional heavy angle structures, it generally avoids impacts to residences, does not require the removal of an existing structure, avoids bisecting large contiguous land ownership, and does not impact known environmentally or culturally sensitive features. GBX Ex. 8.8 at 2-3; GBX Ex. 8.9; GBX IB at 122-123; GBX RB at 79.

Grain Belt Express explains that Branch Properties proposed two modifications to the Proposed Route, a Northern Realignment and a Southern Realignment. The Northern Realignment is the same as the Rex Encore Modification, except for the western portion of the route. Branch Ex. 1.0 at 9; Rex Encore Ex. 1.0 at 6; Rex Encore Ex. 1.4; GBX Ex. 8.8 at 4; GBX IB at 123. The Northern Modification deviates from the Proposed Route approximately 3,000 feet west of State Highway 96, adjacent to a drainage canal. The Northern Realignment then angles to the northeast, crosses State Highway 96 and enters the Mississippi River bluffs 1100 feet south of the intersection of State Highway 96 and Township Road 1610 E. The Northern Realignment then passes just south of two residences along Township Road 1610 E before angling east to join the Rex Encore Modification to continue east for another 2 miles. It continues to follow the Rex Encore Modification as it turns to the southeast and rejoins the Proposed Route west of 290th Street. Branch Ex. 1.0 at 9; Rex Encore Ex. 1.0 at 6; Rex Encore Ex. 1.4; GBX Ex 8.8 at 4; GBX IB at 123.

Grain Belt Express explains that Branch Properties Southern Realignment diverts from the Proposed Route 2,000 feet west of State Highway 96. Branch Ex. 1.0 at 9; Rex Encore Ex. 1.4; GBX Ex. 8.8 at 4; GBX IB at 123. It angles nearly 90° south to follow a parcel boundary for 0.5 miles, then parallels a levee as it angles 90° east towards State Highway 96. Branch Ex. 1.0 at 9; Rex Encore Ex. 1.0 at 6; Rex Encore Ex. 1.4; GBX Ex. 8.8 at 4; GBX IB at 123. The route then crosses an existing 115 kV transmission line and State Highway 96 and enters the Mississippi River bluffs. The Southern Realignment continues on this easterly alignment for nearly 1.5 miles before angling to the southeast just west of Township Road 1743 E. It passes directly behind a residence along Township Road 1743 E and crosses Horton Creek before angling back due east for an additional 0.6 miles. The Southern Realignment then angles to the northeast for 1.3 miles to rejoin the Proposed Route near 290th Street. Branch Ex. 1.0 at 9; Rex Encore Ex. 1.0 at 6; Rex Encore Ex. 1.4; GBX Ex. 8.8 at 4; GBX IB at 123-124.

Grain Belt Express states that the Branch Properties Northern Realignment is not consistent with the routing approach and rationale presented in Grain Belt Express' Route Selection Study. GBX states that the Northern Realignment would impact additional landowners along Township Road 1610 E and would come within 500 feet of two residences (one of which is less than 250 feet from the Northern Realignment) along Township Road 1610 E. GBX Ex. 8.8 at 5; GBX IB at 124. Further, the Northern Realignment would need to be modified to account for terrain along its northeastern alignment. GBX Ex. 8.8 at 5; GBX IB at 124. Most notably, the angle just north of 236th Avenue falls within a small stream valley and would likely need to be moved 200 to 400 feet farther to the west to meet reasonable design standards, which would typically seek to place the structure on the high ground to the west of the current angle structure location. GBX Ex. 8.8 at 5; GBX IB at 124. GBX states that placing a steep angle structure in a topographic depression or low on a steep valley side slope would likely require a very tall structure to ensure appropriate mid-span ground clearance, and may also require shorter span lengths both upstream and downstream of the angle. GBX states that this necessary shift would move the Northern Realignment closer to the two residences along Township Road 1610 E and would require several angles so that structures could be placed along ridgelines south of Township Road 1610 E, instead of along steep side slopes. GBX Ex. 8.8 at 5; GBX IB at 124. Grain Belt Express concludes that the Branch Properties Northern Realignment should not be considered as a realignment of the Proposed Route. GBX IB at 124.

Grain Belt Express states that the Southern Realignment also is not consistent with the routing approach and rationale presented in the Route Selection Study. GBX IB at 124; GBX RB at 78. The Southern Realignment adds nearly one mile to the length compared to the Proposed Route. GBX Ex. 8.8 at 5; GBX IB at 124. It would require six heavy angle structures, including two 90° angle structures within half a mile of one another, which was generally avoided in the development of the Proposed Route, due to wire stringing considerations. GBX Ex. 8.8 at 5; GBX IB at 124. GBX states that, additionally, the Southern Realignment would come within 500 feet of one residence along State Highway 96, and as it is proposed, would require removal of a residence along Township Road 1750 E. GBX Ex. 8.8 at 5; GBX IB at 124-125. GBX concludes that for all of these reasons, the Southern Realignment is not reasonably consistent with Grain Belt Express' routing criteria, and should not be considered. GBX IB at 125; GBX RB at 78-79.

Grain Belt Express notes that while Rex Encore witness Mr. Chad Brigham does not object to the Branch Properties' Northern Modification, he does object to the Southern Modification, because it increases the impact on Rex Encore's property and is not a consensus route, which would increase the risks and costs of litigation if it were adopted. Rex Encore Ex. 1.0 at 7, 16; GBX IB at 125; GBX RB at 78-79. However, Branch Properties witness, Mr. Rodgers, has stated that he would support the Commission's adoption of the Proposed Route with the Rex Encore Modification and has stated that the Grain Belt Express Adjustment is an improvement on the Rex Encore Modification. GBX Cross-Exam. Ex. 1.0; GBX IB at 125; Branch IB at 7; GBX RB at 79. GBX notes, additionally, that Rex Encore witness Mr. Brigham does not object to the Grain Belt Express Adjustment. Rex Encore Ex. 1.0 at 7; GBX IB at 125; Rex Encore RB at 2.

Grain Belt Express concludes, in sum, that the Grain Belt Express Adjustment to

the Rex Encore Modification best meets Grain Belt Express' Routing Criteria because it generally avoids impacts to residences, avoids the need to remove an existing structure, avoids bisecting large contiguous land ownership, and does not impact known environmentally or culturally sensitive features. Additionally, Rex Encore does not object to the Grain Belt Express Adjustment and Mr. Rodgers has stated that the Grain Belt Express Adjustment is an improvement to the Rex Encore Modification. Accordingly, Grain Belt Express recommends that the Commission should adopt the Proposed Route with the Grain Belt Express Adjustment to the Rex Encore Modification. GBX IB at 125; GBX RB at 79. Grain Belt Express states that the legal description of the Proposed Route provided by Mr. Gaul as GBX Exhibit 8.10 includes the Grain Belt Express Adjustment to the Rex Encore Modification. GBX IB at 125.

2.-x. [Other Parties' Positions]

y. Commission Analysis and Conclusion

Based on its review of the evidence, the Commission approves the Grain Belt Express Adjustment to the Rex Encore Modification. The Grain Belt Express Adjustment modifies the Proposed Route just east of Highway 96 in Pike County in the area of Branch Properties and Rex Encore properties. Both Branch Properties and Rex Encore submitted revisions to the Proposed Route in this same area; however, the Commission concludes that the Grain Belt Express Adjustment avoids impacts to residences, avoids the need to remove an existing structure, avoids bisecting large contiguous land ownership, and does not impact known environmentally or culturally sensitive features. The Commission notes that both Branch Properties and Rex Encore do not object to the Grain Belt Express Adjustment. With its finding that the Grain Belt Express Adjustment to the Rex Encore Modification should be adopted to resolve the one set of objections to the Proposed Route presented in this case, the Commission approves the modified Proposed Route set forth in the legal description in Grain Belt Exhibit 8.10 and provided as Appendix A to this Order.

D. Proposed Design Aspects of the Project

Grain Belt Express' Position

Grain Belt Express explains that the Project is an approximately 780-mile, ±600 kV, multi-terminal overhead HVDC transmission line (the last approximately 5.2 miles of the transmission line will be AC facilities). GBX Ex. 2.0 at 5; GBX IB at 125-126. The Project will be rated at ±630 kV, which includes a 5% overvoltage margin. The operating voltage will be ±600 kV. As measured between the poles, the voltage would be 1,200 kV. GBX Ex. 2.0 at 14; GBX IB at 126. GBX states that the Project will deliver up to 4,000 MW of wind generated electricity from western Kansas to customers in Missouri, Illinois, Indiana and states farther east. The western terminus of the Project will interconnect to the ITC Great Plains 345 kV system in the SPP RTO. Two delivery stations of the Project will be interconnected to, respectively, the Ameren Missouri ("Ameren") 345 kV system in MISO and the American Electric Power ("AEP") 345 kV system in PJM. GBX Ex. 2.0 at 5; GBX IB at 126.

Grain Belt Express states that the use of HVDC technology is a particularly appropriate solution for the Project, *i.e.*, for moving large amounts of power from variable generation sources (such as wind farms) over long distances, primarily or

exclusively in one direction. GBX Ex. 2.0 at 8-9; GBX IB at 126. GBX explains that the use of DC lines results in a lower cost of transmission than would AC lines and that the use of HVDC technology has a number of distinct benefits, including: (1) HVDC lines can transfer significantly more power with lower line losses over longer distances than comparable AC lines; (2) HVDC lines complement AC networks without contribution to short circuit current power or additional reactive power requirements; (3) HVDC lines can dampen power oscillations in an AC grid through fast modulation of the AC-to-DC converter stations and thus improve system stability; (4) HVDC technology gives the operators direct control of energy flows, which makes HVDC particularly well-suited to managing the injection of variable wind generation; (5) HVDC lines, unlike AC lines, will not become overloaded by unrelated outages, because the amount of power delivered is strictly limited by the DC converters at each end of the HVDC line, thereby reducing the likelihood that outages will propagate from one region to another; and (6) HVDC lines utilize narrower rights-of-way and fewer conductors than comparable AC lines, thereby making more efficient use of transmission corridors and minimizing visual and land use impacts. GBX Ex. 2.0 at 9; GBX IB at 126.

Grain Belt Express explains that HVDC technology has been used and proven for several decades. GBX states that in North America, there are over 30 HVDC installations, dating back as far as 1968. GBX Ex. 2.0 at 10; GBX IB at 127. GBX states that HVDC applications are commonplace worldwide and are continuing to increase in applications similar to what Grain Belt Express plans to use for the Project (and Clean Line plans to use for its three other DC transmission projects). According to Grain Belt Express, there are significant HVDC transmission applications in India, China, Australia, New Zealand, Brazil, Japan and Europe. GBX Ex. 2.0 at 10; GBX IB at 127.

1. Easement Widths

a. Grain Belt Express' Position

Grain Belt Express states it is requesting reasonable easement widths for the Project right of way. Grain Belt Express explains that for both the DC and AC Sections, the right-of-way for the Project will vary between 145 feet and 200 feet wide around the centerline, depending on Project requirements at particular locations. GBX Ex. 2.0 at 18; GBX IB at 127. To accommodate the possible need for the maximum width at specific locations, Grain Belt Express is requesting authority for a 200 foot right-of-way. For the final four miles of the Project in Illinois, which will utilize a double circuit 345 kV AC transmission line, Grain Belt Express is also seeking a 200 foot right-of-way. GBX Ex. 2.0 at 18; GBX IB at 127.

Grain Belt Express explains that the right-of-way width is based on the need to maintain electrical safety clearances and to provide access for construction and maintenance of the line. GBX Ex. 2.0 at 19; GBX IB at 127. Of these two factors, Grain Belt Express notes that maintaining electrical safety clearances is typically the controlling factor for transmission lines of this type, because wind blowing on transmission line wires will cause them to move away from the center of, and towards the side of, the right-of-way. This movement is commonly referred to as "blowout" and can occur in either direction towards the edges of the right-of-way. *Id.* GBX states that, therefore, enough right-of-way width must be established to allow the predicted wire "blowout" movement on both sides of the right-of-way, while maintaining required electrical clearances from vegetation, structures, and other infrastructure. GBX Ex. 2.0

at 19; GBX IB at 127.

Grain Belt Express explains that as the span length of the transmission wire between the supporting structures increases, the amount of predicted transmission wire sway increases. GBX Ex. 2.0 at 19; GBX IB at 127. GBX states if a location on the Project requires an atypical span (to accommodate terrain features, land use considerations, and other local factors), then it is possible that a right-of-way wider than 200 feet would be required at that location. Grain Belt Express has identified four sections along the Proposed Route where it expects it may require a right-of-way between 275-300 feet in width:

(1) In Pike County, in section 21 of Township 5 South, Range 7 West, of the 4th Principal Meridian, the Project will require a long span in order to cross the Mississippi River as the Project exits Missouri and enters Illinois. The longer span is required due to the width of the Mississippi River, thus requiring taller structures and therefore requiring a wider right-of-way. For this span, GBX requests a 300-foot right-of-way. The 300-foot right-of-way will be required for the first 950 feet from the Mississippi River shoreline. GBX Ex. 2.0 at 20; GBX IB at 128.

(2) Also in Pike County, in section 36 of Township 5 South, Range 6 West and sections 30 and 31 of Township 5 South, Range 5 West of the 4th Principal Meridian, there is a portion of the Proposed Route among the bluffs above the Mississippi River for which longer spans should be installed in order to avoid sub-optimal span lengths within the valley below these bluffs as well as to avoid impacts to the riparian corridor within the valley. For this span, Grain Belt Express requests a 275-foot right-of-way. The 275-foot right-of-way will be needed from a point approximately 385 feet west and 70 feet south of the northeast corner of Section 36 to a point approximately 1,785 feet east of the southwest corner of section 30. GBX Ex. 2.0 at 20; GBX IB at 128.

(3) In section 12 of Township 6 South, Range 2 West of the 4th Principal Meridian and section 29 of Township 13 North, Range 13 West of the 3rd Principal Meridian, as the Proposed Route crosses from Pike County into Scott County across the Illinois River, a longer span will be required for the river crossing. For this span, Grain Belt Express requests a 275-foot right-of-way. The 275-foot right-of-way would be required from a point approximately 100 feet from the western shore of the Illinois River to a point approximately 915 feet beyond the eastern shore of the Illinois River. GBX Ex. 2.0 at 20-21; GBX IB at 128.

(4) In Scott County, in sections 33 and 34 of Township 13 North, Range 12 West of the 3rd Principal Meridian, the portion of the Proposed Route that crosses the Little Sandy Creek drainage basin may require longer spans to minimize impacts to the riparian corridor in the Little Sandy Creek valley as well as ensure access to the line for future maintenance activity. For this span, GBX requests a 275 foot right-of-way. The 275 foot right-of-way would be required from a point approximately 1,300 feet south and 400 feet east of the northwest corner of section 33 to a point approximately 1,315 feet south and 220 feet east of the northwest corner of section 34. GBX Ex. 2.0 at 21; GBX IB at 128.

Grain Belt Express further explains that in some areas, Grain Belt Express may require a temporary construction easement beyond the 200 foot right-of-way. GBX Ex. 2.0 at 22; GBX IB at 128. Grain Belt Express is requesting authority for temporary construction easements of an additional 50 feet in those areas of the Project where the permanent authorized right-of-way is not sufficient for construction activities or to access the construction area. Further, GBX states that to accommodate the stringing of the conductor at locations along the route where a major turning structure (15 to 90 degree angle) is required, a temporary easement of up to 450 feet beyond the permanent 100-foot right-of-way on one side of a turning structure would also be needed. GBX Ex. 2.0 at 22-23; GBX IB at 128-129. GBX estimates that it will have up to 80 locations for such turning structures and that 54 of the 80 major turning structures will require temporary work spaces extending 300 feet or less outside the permanent right-of-way. Grain Belt Express explains that any temporary construction easement would revert to the landowner when the Project has been constructed and placed into operation. GBX Ex. 2.0 at 23. GBX IB at 129.

Grain Belt Express' Response to LACI's Argument on Easement Width

Grain Belt Express addressed LACI's argument that the 200 foot wide easement sought by Grain Belt Express for the Project is "wider than other recent transmission projects in this state," and LACI's arguments that Grain Belt Express failed to compare burdens to landowners (in the form of easement widths) in its decision to use HVDC technology for the Project. LACI IB at 47; GBX RB at 79-80. Grain Belt Express states that LACI's argument with respect to the requested width of the easement area for the Project fails because it is premised on the incorrect assumption that easement width is *the* determinative factor as to the potential burden the Project may impose on landowners. GBX RB at 80. GBX explained that examination of the single case that LACI relied upon shows that the cited project will actually impose a more significant burden on landowners than will the Grain Belt Express Project. GBX RB at 80.

Specifically, Grain Belt Express explained that LACI relied on ComEd's application in Docket 13-0657, where ComEd sought a CPCN pursuant to §8-406.1 to construct a new 345 kV electric transmission line that is approximately 60 miles long. There, ComEd requested a minimum right-of-way of between 110 and 120 feet wide. *See* Verified Petition of ComEd in Docket 13-0657 ("the "ComEd Petition"), ¶ 8, 10, 12. GBX RB at 80. As set forth in the testimony proffered by ComEd witness Kaup in that docket, ComEd intends to install (i) double-circuit self-supporting steel structures with a typical span of 925 feet for 34.2 miles of the transmission route, and (ii) triple-circuit self-supporting steel structures with a typical span of 700 feet for 25.4 miles of the route. ComEd Petition, ¶13; ComEd Ex. 6.0 in Docket 13-0657 ("ComEd Ex.") at 9; GBX RB at 80. GBX explained that unlike the ComEd project, the transmission structures for the Grain Belt Express Project will have spans of 1,200 feet. GBX IB at 129; GBX RB at 80. Grain Belt Express witness Dr. Galli explained that "the right-of-way width is driven primarily by the distance that you have between structures," which he referred to as "span length," because the right-of-way needs to be wide enough to accommodate the movement of the conductor caused by wind and other conditions. Tr. 796; GBX RB at 80. Dr. Galli further testified that the requested 200-foot wide right-of-way allows Grain Belt Express to *reduce* the number of structures that it will use for the Project. Tr. 803, 825; GBX RB at 80-81. GBX explained that, accordingly, while ComEd may have

requested a narrower right-of-way, the ComEd project imposes a larger burden on the landowners since the ComEd line will have shorter span lengths (700 foot and 925 foot span lengths for the ComEd project as compared to 1,200 foot span lengths for the Grain Belt Express Project), and therefore the ComEd project will have more transmission structures occupying the landowner's property as compared to the Grain Belt Express Project. GBX RB at 81. GBX explained that based on the typical span lengths, it estimates that the ComEd project will have 5-8 transmission structures per mile, as compared to 4-5 transmission structures per mile in the Grain Belt Express Project. Grain Belt Express states that while farmers can still farm their land in the easement area, farmers claim that the transmission structures are obstacles that impact their farming operations. GBX RB at note 73.

Also, Grain Belt Express explained that LACI inaccurately asserted in its initial brief that the right-of-way sought by ComEd was sufficient to accommodate "two 345 kV circuits and one 138 kV circuits with room for a future set of two more 345 kV and one more 138 kV circuit." LACI IB at 47; GBX RB at 81. Grain Belt Express pointed out that the ComEd project only involved the "installation of one [three-phase 345kV] circuit;" ComEd proposed to install (i) double-circuit steel poles "*capable* of supporting a second 345 kV circuit" (for 34.2 miles of the transmission line), and (ii) triple-circuit steel poles "*capable* of supporting a second 345kV circuit and a 138 kV circuit" (for 25.4 miles of the transmission line). (emphasis added.) ComEd Petition, ¶13; ComEd. Ex. 6.0 at 9; GBX RB at 81. GBX further noted that ComEd explained that it sought to install the double-circuit and triple-circuit steel poles to allow for "future long-term growth" and to avoid having to "remove single-circuit poles installed as part of the [subject] Project when additional circuits need to be installed in the future." ComEd Petition, ¶13; ComEd. Ex. 6.0 at 10; GBX RB at 81. GBX contended that none of the testimony LACI cited establishes that the narrower right-of-way sought by ComEd in Docket 13-0657 was sufficiently wide to accommodate the additional 345 kV and 138 kV circuits that ComEd may seek to add to the transmission structures at a future date. GBX RB at 81.

Grain Belt Express further stated that LACI never explained how much power would be transmitted by the transmission lines in the ComEd project. GBX RB at 81. Grain Belt Express explained that the ComEd project involves lower voltage lines (138 kV and 345 kV), and that the Grain Belt Express Project will be a ±600 kV HVDC transmission line capable of carrying 4,000 MW. GBX Ex. 2.0 at 5, 14; GBX RB at 81-82. GBX noted that Dr. Galli analyzed and compared the AC alternatives for moving 4,000 MW of power over a 780-mile distance, and concluded that all but one of the AC alternatives required multiple lines to carry 4,000 MW over a distance of 780 miles. GBX Ex. 2.0 at 13; GBX RB at 82. Dr. Galli further testified that the HVDC line (capable of transmitting 4,000 MW of power over a distance of 780 miles) will have a narrower right-of-way than the AC alternatives he examined. Tr. 810, 811; GBX RB at 82.

Further, Grain Belt Express explains that, except for four specific locations identified in Dr. Galli's testimony, it anticipates that the actual right-of-way for the Project will vary between 145 feet and 200 feet wide around the centerline, depending on Project requirements at particular locations. Grain Belt Express notes that upon approval of the Proposed Route, it will engage in more detailed pole spotting activities that will allow it to identify specific locations where narrower right-of-ways may be feasible. GBX Ex. 2.0 at 18; Tr. 153-154, 802-803; GBX RB at 82. Also, Grain Belt Express notes that its sister company, Rock Island, similarly requested a 200 foot right-

of-way for the entire DC section of that Project, which this Commission found to be reasonable and approved. Order in Docket 12-0560 at 171-172; GBX RB at 82.

Grain Belt Express also responded to LACI's argument that in selecting HVDC technology for the Project, Grain Belt Express "only compared costs to its bottom line." LACI IB at 47; GBX RB at 82. Grain Belt Express states that this argument ignores that it intends to pay landowners 100% of the fair market value of the easement area, and therefore the price it pays for easements is a function of the size of the easement area. GBX Ex. 7.0 at 22; GBX IB at 132; GBX RB at 82-83. GBX states, therefore, that it is in Grain Belt Express' financial interest to seek to obtain the narrowest easement possible, consistent with safety and reliability requirements, so as to avoid purchasing easement land it does not actually need to construct and maintain the Project. GBX RB at 83.

Grain Belt Express addressed LACI's argument that GBX does not know how much land it intends to burden because Grain Belt Express wishes to control activities outside the easement area permanently. LACI IB at 48; GBX RB at 83. Grain Belt Express pointed out that the proposed easement agreement for the Project provides that GBX may "cut down and trim any tree located outside the Easement that in the opinion of Grain Belt may interfere with the safety, proper operation and/or maintenance of the Facilities." GBX Ex. 7.17 at ¶3(c); GBX RB at 83. On cross-examination, Grain Belt Express witness Mr. Lawlor clarified this provision, when he was asked whether, pursuant to paragraph 3 of the proposed easement, Grain Belt Express "has the right in its discretion to limit the use of the land outside the easement," and Mr. Lawlor answered that "I believe the only use at reference here is that of tree trimming." Tr. 158; GBX RB at 83. GBX further asserted that a FERC-approved mandatory NERC reliability standard requires that transmission owners maintain adequate clearance between transmission lines and vegetation, and GBX has previously acknowledged it must comply with this NERC requirement. GBX Ex. 2.0 at 41-42; GBX RB at 83. Grain Belt Express asserted that other than the right to trim trees located outside the easement area for purposes of protecting the safety and integrity of Project structures, facilities and operations, LACI has failed to identify any provision of the proposed easement agreement (or testimony from this case) that establishes Grain Belt Express intends to control any other activities outside the easement area. GBX RB at 83.

b.-x. [Other Parties' Positions]

y. Commission Analysis and Conclusion

Based on its review of the evidence and the parties' arguments, the Commission approves Grain Belt Express' request for a permanent right-of-way of 200 feet around the centerline of the transmission line from the Mississippi River to the converter station (with the exception that approval is also granted for rights-of-way greater than 200 feet in the segments of the route described in paragraph 74 of Grain Belt Express' Application), and 200 feet around the centerline of the double circuit 345 kV AC lines from the converter station in Clark County, Illinois, to the Illinois-Indiana border. The Commission also approves Grain Belt Express' request for additional temporary easements of (i) 50 feet beyond the permanent right-of-way as required for purposes of access and construction during construction of the Project and (ii) up to 450 feet beyond the permanent right-of-way at those locations with turning structures at 15 to 90 degree angles as described in paragraph 75 of Grain Belt Express' Application.

The Commission rejects the arguments asserted by LACI that Grain Belt Express does not require a 200-foot easement or that Grain Belt Express failed to compare burdens to landowners (in the form of easement widths) in its decision to use HVDC technology. As Grain Belt Express explained, the 200-foot width easement allows Grain Belt Express to utilize greater spans between structures and thereby reduces the number of structures that will occupy the easement area of landowner properties. Further, the evidence shows that 200 feet is the maximum easement width that Grain Belt Express will require and that Grain Belt Express will seek to use narrower rights of way when possible consistent with applicable safety, reliability and design considerations. The Commission also rejects LACI's assertion that Grain Belt Express wishes to control activities outside the easement area. As with all transmission lines, the transmission owner is required to comply with applicable regulations, and as explained by Grain Belt Express, certain NERC standards require the transmission owner to maintain adequate clearance between the transmission line and vegetation, which may require tree-trimming and other vegetation management activities outside the easement to protect the safety and integrity of the transmission line.

2. Structure Types and Other Design Parameters

a. Grain Belt Express' Position

Grain Belt Express states that in its AIMA entered into with the Illinois Department of Agriculture, Grain Belt Express has committed that on agricultural lands:

> Tangent structures (straight-line, non-turning structures) will utilize only single, drilled pier type concrete foundations or direct embed type foundations that are typical of single pole type structures. Clean Line will not utilize multi-foundation lattice type structures for tangent structures, though such structures may be used for turns, long spans such as river crossings, and similar situations where specific engineering and environmental challenges are present. (GBX Ex. 7.15 at 4.) GBX IB at 129.

Grain Belt Express explains its designs for lattice mast structures and tubular steel monopoles ("lattice mast" and "tubular steel monopoles" are both single-foundation (single pier) structures, GBX Ex. 2.0 at 16; GBX Ex. 7.15 at 4) to be used for the Project anticipate typical, optimum span lengths of 1,200 feet and heights in the range of 100 to 175 feet, depending on terrain topography. GBX states that given conditions allowing for such spans, there would typically be five tubular steel monopoles or lattice mast structures per mile. River crossings and certain other situations may require taller towers and longer spans. GBX Ex. 2.0 at 17; GBX IB at 129-130. Additionally, in the AIMA, GBX has committed to avoid using guy-wire-supported structures, to the extent feasible, in Illinois. GBX Ex. 7.15 at 4. GBX IB at 130.

Grain Belt Express explains that GBX Exhibit 2.2 shows what the typical, single foundation structures and the lattice tower structures will look like, as well as the loading tables and clearances of these structures under the various National Electrical Safety Code design cases. GBX Exhibit 2.2 also includes the clearance calculations used to design the structures for the Grain Belt Express Project. GBX IB at 130.

Grain Belt Express explains that the Project will utilize 2156 kilo-circular mil ("kcmil") ACSR conductors in a triple bundle configuration for the pole conductors. GBX

Ex. 2.0 at 16; GBX IB at 130. For the dedicated metallic return of the HVDC line, GBX plans to use two, 1780 kcmil ACSR conductors, subject to final design refinement based on the final Commission-approved route. GBX Ex. 2.0 at 16; GBX IB at 130.

Grain Belt Express' Response to IAA

Grain Belt Express addressed IAA's assertion that because Dr. Galli testified that the monopole structures will be used for tangent structures for roughly 90% of the Project in Illinois, the Commission's order should include this percentage as a minimum threshold that Grain Belt Express must satisfy. IAA IB at 44; GBX RB at 84. Grain Belt Express responded that it has already committed to use "lattice mast" and "tubular steel monopoles" (which are both single foundation/pier structures) for tangent structures (i.e., non-turning structures), except where "specific engineering and environmental challenges are presented." GBX Ex. 7.15 at 4; GBX Ex. 2.0 at 16; GBX IB at 129; GBX RB at 84. GBX further stated that the engineering of the Project is not sufficiently advanced at this time, and will not be sufficiently advanced until after a route is approved by the Commission, for Grain Belt Express to be able to commit to a minimum threshold percentage for the monopole structures. Tr. 772-773, 802-803; GBX RB at 84.

Grain Belt Express' Response to LACI

Grain Belt Express addressed LACI's argument that Grain Belt Express "is free to use multi-footed lattice structures at its heart's desire," that Grain Belt Express prefers multi-footed lattice structures even when monopoles are appropriate, and that the AIMA does not protect landowners from Grain Belt Express' indiscriminate use of multi-footed lattice structures. LACI IB at 48; GBX RB at 84. Grain Belt Express refuted all of these assertions. First, Grain Belt Express explained that per the terms of the AIMA, it has committed to using single-foundation structures for tangent structures except where "specific engineering and environmental challenges are presented." GBX Ex. 7.15 at 4; GBX Ex. 2.0 at 16; GBX IB at 129; GBX RB at 84. GBX noted that the AIMA is an agreement between Grain Belt Express and the Illinois Department of Agriculture and sets forth terms that the Department of Agriculture has determined meets its requirements to minimize and mitigate impacts to agricultural properties. The terms of the AIMA will be incorporated into the easement agreements with landowners. GBX Ex. 7.0 at 24; GBX Ex. 7.15, ¶ 19(D); GBX IB at 135-136; GBX RB at 84-85. GBX also noted that the cited term in the AIMA is the same term contained in the AIMA for the Rock Island Project, which this Commission determined was sufficient and appropriate, and directed Rock Island to comply with the "tangent structure provision" of the AIMA. Order in Docket 12-0560 at 182; GBX RB at 85.

LACI further asserted that this Commission (i) "cannot rely on the AIMA and GBX's promise to conclude that GBX will primarily use monopoles or lattice mast structures," and (ii) cannot look to the past conduct of Grain Belt Express or its sister companies because they have never built a transmission line. LACI IB at 49; GBX RB at 85 note 76. Grain Belt Express responded that this Commission has previously determined that the terms of the AIMA, and Rock Island's agreement to comply with this provision, were sufficient to ensure that Rock Island will only use multi-footed structures where necessary and appropriate. GBX RB at 85 note 76.

Grain Belt Express stated that LACI mischaracterized Dr. Galli's testimony where LACI asserted that "GBX prefers multi-footed lattice structures even when monopoles

are appropriate." LACI IB at 48, citing Tr. 778:7-13; GBX RB at 85. GBX explained that the cited portion of Dr. Galli's testimony shows that Dr. Galli simply preferred not to commit Grain Belt Express to a requirement that if requested by a landowner, Grain Belt Express will use a "more robust monopole" instead of a "dead-end or heavy angle structure." GBX contended that Dr. Galli's testimony does not establish that it is Grain Belt Express' preference to use multi-footed structures. Tr. 778; GBX RB at 85. Grain Belt Express pointed out that in declining to make such a commitment, Dr. Galli testified that "every situation is very specific." Tr. 778; GBX RB at 85. Dr. Galli further testified that he expects roughly 90% of the structures to be single-foundation structures. Tr. 772-773; GBX RB at 85.

Grain Belt Express also responded to LACI's assertion that because angles as "narrow as 15 degrees can entitle [Grain Belt Express] to use the larger multi-footed lattice structures," that "large scale use of GBX's preferred multi-footed lattice structures is possible." LACI IB at 49. Grain Belt Express stated that LACI's assertion was undermined by Dr. Galli's testimony that (i) "a 15-degree angle could be a heavy angle or it could be a light angle depending upon topography… [and] what kind of span length that you may require on one side or the other" (and therefore may not require a multi-footed structure), and (ii) that he expects 90% of the structures to be single foundation structures. Tr. 772-773, 818.

Grain Belt Express responded to LACI's argument that because Grain Belt Express "makes its money by earning a margin," and "not a guaranteed rate of return," it has "every reason to use the cheapest transmission structures and it prefers multi-footed lattice structures." GBX RB at 85. Grain Belt Express responded that it is not an incumbent utility, that earns its profit by the application of an allowed rate of return to an investment base (rate base). Therefore, Grain Belt Express has a strong incentive to use the most economical and efficient structure types; i.e., smaller sized structures for the Project where possible, to minimize costs. GBX further explained that even if LACI's (completely unsupported) assertion that it is Grain Belt Express' preference to use multi-footed lattice structures were true, LACI provided no evidence that multi-footed lattice structures are cheaper than more "robust monopoles" and that the purported lower cost of such structures makes them more attractive to Grain Belt Express. GBX RB at 85-86. Grain Belt Express also pointed out that LACI's entire argument on this point is based on the faulty premise that a much larger, "robust," single-footed monopole structure is always less burdensome to the landowner than a multi-footed structure. GBX RB at 86. Grain Belt Express explained that, as Dr. Galli testified, such robust structures may actually cause more damage to landowner property because the "robust" single-footed structure will require, inter alia, larger foundations, many more trucks of concrete, and heavier cranes to construct such structures. Tr. 774; GBX RB at 86.

b.-x. [Other Parties' Positions]

y. Commission Analysis and Conclusion

Based on its review of the record, the Commission approves the use of the proposed structures for the Project as depicted in drawings provided by Grain Belt Express Exhibit 2.2 and in accordance with the provisions of the AIMA between Grain Belt Express and the Illinois Department of Agriculture. The Commission rejects IAA's request that the Order specify a minimum percentage threshold that Grain Belt Express

must comply with as to the use of monopole, single foundation structures. As Grain Belt Express explained, per the terms of the AIMA, Grain Belt Express has committed to use single foundation/pier structures for tangent structures, except where specific engineering and environmental challenges are presented. The Commission finds that LACI has failed to establish that Grain Belt Express is "free to use multi-footed lattice structures at its heart's desire" or that it is Grain Belt Express's preference to use such structures. As stated in the previous paragraph, Grain Belt Express has committed to use single foundation/pier structures for tangent structures, except where specific engineering and environmental challenges are presented. The Commission recognizes, however, that at this stage of the design and engineering processes, and before beginning to work with individual landowners as to the placement of structures on their properties based on the route approved by the Commission, Grain Belt Express cannot make specific determinations as to the types of structures that will need to be installed at specific locations.

E. Grain Belt Express' Approach to Land Acquisition

1. Grain Belt Express' Position

Grain Belt Express states that it seeks to acquire as much of the required right-of-way as possible through voluntary negotiated transactions. Grain Belt Express states that it is not seeking condemnation authority at this time and that it will attempt to acquire all of the rights-of-way needed through voluntary transactions negotiated in good faith. GBX Ex. 7.0 at 23-24; GBX Ex. 7.22 at 14; GBX IB at 131. GBX states that it will not seek condemnation authority on a parcel unless and until it has exhausted reasonable efforts to acquire a transmission line easement through a voluntarily negotiated agreement. GBX Ex. 7.0 at 24; GBX Ex. 7.22 at 14; GBX IB at 131.

Grain Belt Express described its commitment to conducting transmission line easement negotiations in a manner that reflects respect for the private property rights of landowners. Grain Belt Express believes that there are five key elements to a respectful land acquisition approach: (1) communicating the overall need for the Project; (2) seeking feedback from landowners on the routing options; (3) providing clear information on the routing criteria used by Grain Belt Express; (4) demonstrating respect for private property rights and existing land uses; and (5) offering a fair and comprehensive compensation package for transmission line easements. GBX states that the goal of these policies is to facilitate the respectful and equitable treatment of landowners and to support voluntary transmission line easement acquisition. GBX Ex. 7.0 at 20-21; GBX IB at 130. Grain Belt Express states that it has established and adopted a Code of Conduct for its employees, land agents, and other representatives who will be in contact with landowners. GBX Ex. 7.0 at 21; GBX Ex. 7.13; GBX IB at 130. The Code of Conduct will help establish a tone of respectful dialogue and encourage the voluntary acquisition of transmission line easements. Among other things, it requires that all communications with landowners and other persons made by employees, right-of-way agents and subcontractor employees representing Grain Belt Express must be factually correct, made in good faith, respectful and reflective of fair dealing, and respectful of the privacy rights of property owners. GBX Ex. 7.0 at 21; GBX Ex. 7.13; GBX IB at 131.

Grain Belt Express states that it will carefully adhere to the Commission's regulations prohibiting actual parcel-specific negotiations for land rights until landowners

have been notified in writing of Grain Belt Express' desire to acquire land rights from the landowner, as described in a letter sent via certified mail, return receipt requested. GBX Ex. 7.0 at 21-22; GBX IB at 131. Grain Belt Express and its representatives will observe the required 14 day waiting period before initiating follow-up contact with landowners. GBX Ex. 7.0 at 22; GBX IB at 131. Additionally, Grain Belt Express representatives will carry and present proper identification as required by the Commission regulation. *Id.* At the initial meeting with each landowner, Grain Belt Express representatives will be prepared to provide and discuss the information required by 83 Ill. Admin. Code §300.30. *Id.* Grain Belt Express states that it will negotiate with the landowner's attorney or other representative if requested by the landowner. GBX Ex. 7.0 at 22; GBX IB at 131.

Grain Belt Express responded to IAA's request that the Commission's Order require that pending easement offers to landowners would still be honored after Grain Belt Express is granted eminent domain authority. IAA IB at 45; GBX RB at 86. Grain Belt Express states that it has not asked for eminent domain authority in this proceeding, and as such, consideration of this proposed condition is premature; the appropriate place for proposing this condition would be during a §8-509 proceeding if and when Grain Belt Express requests such authority. GBX also states that eminent domain authority under §8-509 will not be granted unless it can establish that it has engaged in considerable good faith negotiation efforts with the landowner, which includes making offers and multiple contacts (or attempts at contacts) with the landowner. Grain Belt Express states that it has strong incentives to avoid having to file condemnation cases in circuit court: condemnation cases are costly to litigate and can potentially delay the Project given the length of time required to litigate such a case (often 6 to 12 months). As a result, to avoid the expense and delay of a condemnation action, Grain Belt Express has strong incentives to provide fair and reasonable compensation offers that landowners will accept. GBX RB at 86-87. All of that stated, as GBX witness Mr. Lawlor testified (Tr. 137-138), Grain Belt Express will continue to hold open pending easement compensation offers to landowners after it is granted eminent domain authority by the Commission (assuming such authority is requested and received). GBX RB at 87.

Grain Belt Express describes the three primary components to Grain Belt Express' compensation package: an easement payment, structure payments, and crop loss or damages payments. GBX Ex. 7.0 at 22; GBX IB at 132. GBX explains that it will make a one-time easement payment equal to 100% of the fair market fee value of the easement area. GBX Ex. 7.0 at 22; GBX IB at 132. The easement area is determined by multiplying the width of the easement right-of-way by the length of the transmission line route on the landowner's property for a total acreage of the easement area. The acreage of the easement area is then multiplied by the per-acre fair market fee value of the landowner's property to produce the total easement payment. GBX Ex. 7.0 at 22; GBX IB at 132. GBX states that fair market fee value will be determined through a market study of recent sales in the county, as performed by a certified independent appraiser. GBX Ex. 7.0 at 22; GBX IB at 132.

Grain Belt Express states that structure payments will be calculated based on the type of structure to be installed and the number of structures located on each specific property. GBX Ex. 7.0 at 23; GBX IB at 132. Grain Belt Express will offer landowners, at their option, either a one-time payment or a recurring annual payment for each structure

placed on their property. GBX Ex. 7.0 at 23; GBX IB at 132. If a landowner elects to receive annual payments, they will be made as long as the structure is on the easement. Commencing on the first anniversary of the initial structure payment, the annual payments will increase by two percent (2%) each year. GBX Ex. 7.0 at 23; GBX IB at 132.

Grain Belt Express states that additional payments will be made to compensate landowners for crop damage, crop loss, field repair, drainage tile damage, temporary or permanent impacts to center pivot irrigators, or other similar impacts, should they occur. GBX Ex. 7.0 at 23; GBX IB at 132. Alternatively, for impacts such as damage to drainage tiles, Grain Belt Express will, at the landowner's option, either hire contractors or pay qualified contractors of the landowner's choosing to repair or remediate the damage. GBX Ex. 7.0 at 23; GBX IB at 132. After construction of the transmission facilities, the landowner will retain the ability to continue agricultural production on the entirety of the easement area, except for the relatively small footprint of the structures. GBX states that the per-structure compensation described above is intended, in part, to compensate landowners for this impact. GBX Ex. 7.0 at 23; GBX IB at 133.

Grain Belt Express notes that in the vast majority of instances, the use of the land will not change due to the presence of the transmission line. GBX Ex. 7.22 at 15; GBX IB at 133. The landowner will still own the fee title to the land and will be able to continue to use the land for farming, grazing, recreational uses, and many other uses that do not interfere with the operation of the transmission line. GBX Ex. 7.22 at 15; GBX IB at 133. GBX states that only a very small limited number of uses, for example, the construction of a structure or growing of timber directly within the easement right of way, will be prohibited. GBX Ex. 7.22 at 15; GBX IB at 133. Grain Belt Express states that it is offering a compensation package that compensates landowners for 100% of the fair market value of the fee interest in the land within the easement area based on the current use of the land crossed by the easement (even though the landowner typically will be able to continue to use more than 99% of the easement area), and is also offering payments for the placement of structures on the landowner's property. GBX Ex. 7.22 at 15; GBX IB at 133.

Grain Belt Express responded to one landowner witness' concern that landowners may be liable to Grain Belt Express for any damage to the Project or easement. CCPO Ex. 1.0 at 3. Grain Belt Express explained that landowners will not be liable for damages to the Project and easement area. Grain Belt Express stated that it worked with the Kansas Farm Bureau to develop indemnification language for landowners, which it will use in the form of easement across the entire Project area. GBX Ex. 7.22 at 19; GBX Ex. 7.17; GBX IB at 133. Section 11 of the Easement Agreement contains this indemnification provision that protects landowners from claims for injuries to persons or damage to property as a result of the exercise of Grain Belt Express' rights under the easement. GBX Ex. 7.22 at 19; GBX Ex. 7.17; GBX IB at 133. The Easement Agreement also waives claims by Grain Belt Express against the landowner in the event the landowner causes damage to the Project, unless caused by a landowner's breach of the agreement, gross negligence or intentional misconduct. GBX Ex. 7.22 at 19; GBX Ex. 7.17; GBX IB at 133-134.

A landowner witness asserted that Grain Belt Express' ability to mortgage its rights under the easement agreement would possibly make it infeasible for the landowner to sell his or her land. CCPO Ex. 2.0 at 4. In response, Grain Belt Express

explained that while it has the rights to sell, assign, mortgage or lease its rights under the easement, this does not inhibit or limit the landowner's right to sell the property. GBX Ex. 7.22 at 16; GBX IB at 134. Grain Belt Express stated that its rights are limited to easement rights and do not create any opportunity for a valid mechanic's lien on the landowner's property rights or ability to sell the property. GBX Ex. 7.22 at 16; GBX IB at 134. GBX stated that in instances where landowners prefer greater clarification on this issue, Grain Belt Express has allowed landowners in other states to include express language in the easement agreement prohibiting any such liens on the landowner's property and requiring Grain Belt Express to cure any such attempted liens on the landowner's property. GBX Ex. 7.22 at 16; GBX IB at 134.

Grain Belt Express responded to another landowner witness who raised the concern that Grain Belt Express would resell access to the easement to pipelines or other projects. CCPO Ex. 3.0 at 2. Grain Belt Express also responded to IAA's request that the Order require that the easement agreements would only be used for the Project. IAA IB at 45-46. Grain Belt Express states that the Easement Agreement only grants Grain Belt Express the right to construct, operate and maintain a single overhead transmission line within the easement. The easement granted is exclusively for the use of Grain Belt Express. GBX Ex. 7.17, ¶¶ 2, 2(a); Tr. 152-153; GBX IB at 134; GBX RB at 87. The form of easement agreement also states that the easement will be used for the transmission of electrical energy. GBX Ex. 7.17 ¶ 2(b); GBX RB at 87. The Easement Agreement does not permit Grain Belt Express to permit or provide access to any other entity or project within the easement. Tr. 152-153; GBX IB at 134; GBX RB at 87. Grain Belt Express is committed to use the easement solely for the construction of this Project. GBX IB at 134.

2.-x. [Other Parties' Positions]

y. Commission Analysis and Conclusion

The Commission notes Grain Belt Express' statements of its intention to obtain as many easements as possible (and ideally, all) in Illinois through negotiations and voluntary agreements with landowners. Grain Belt Express is required to comply with the requirements of 83 Illinois Administrative Code Part 300 in its contacts and negotiations with landowners. In addition, to be clear, as is common in other transmission line cases under §8-406.1, the Commission states that this Order does not provide authorization for Grain Belt Express to use eminent domain to acquire easements for the Project and that any grant of eminent domain rights to Grain Belt Express for the Project will require a separate petition by Grain Belt Express for eminent domain authority pursuant to §8-509 of the PUA with respect to specific parcels, submission of appropriate proof, and issuance of an order by the Commission granting such authority.

IAA requests that this Order contain a requirement that pending easement offers to landowners would still be honored after Grain Belt Express is granted eminent domain authority. The Commission notes that Grain Belt Express has testified that it will hold open pending easement compensation offers to landowners. However, as this Order does not grant Grain Belt Express any eminent domain authority, including a specific condition on this topic as requested by IAA is premature.

IAA also requests that this Order require that easement agreements only be used

for the Project. The Commission notes that Grain Belt Express has testified that the easement agreement only grants Grain Belt Express authority to construct, operate and maintain a single overhead transmission line within the easement. The easement agreement does not provide Grain Belt Express with authority to provide access to any other entity or project within the easement. Any further language along the lines of the condition proposed by IAA is best addressed in the easement negotiations and agreements between Grain Belt Express and landowners, and as such is not adopted in this Order.

In her Reply Brief, MEZ argues that Grain Belt Express' EPC contractor (i.e., Quanta) and, in turn, Quanta's subcontractors, could assert mechanics liens against, and potentially foreclose on, the entirety of the landowner's farms – and not just against the easement interest which Grain Belt Express acquires – if Grain Belt Express fails to pay sums due under its EPC or other construction contracts. MEZ RB at 4 – 7. MEZ states, "Under the IMLL [Illinois Mechanic's Lien Law] the mechanics lien rights of GBX's contractors, subcontractors and materialmen attach to the entire tract or lot crossed by the Line, as well as all adjacent tracts, and not just the easement parcel." *Id.* at 7. LACI, in its Reply Brief, asserts that "the Act provides that contractors have a lien upon the whole tract or lot of land. 770 ILCS 60/1(a)." LACI RB at 17 – 18.

Neither MEZ nor LACI direct the Commission to any case law, or other precedent, in support of their position, but refer principally to Section 770 ILCS 60/1(a) of the Illinois Mechanics Lien Law (the "IMLL"). LACI references the provision generally. MEZ primarily focuses on the part of §1(a) which states that "[A] contractor . . .has **a lien upon the whole of such lot or tract** of land **and upon adjoining or adjacent lots or tracts of land of such owner** constituting the same premises." MEZ RB at 5 (emphasis in original). MEZ also suggests that, if she signs an easement agreement with Grain Belt Express, Quanta and its subcontractors will have mechanic lien rights against the entirety of her farm, not just the Grain Belt Express easement, because, by signing the easement, she will have authorized or knowingly permitted Quanta to construct the Line on her farm. *Id.* at 4 – 5.

After consideration of these arguments and applicable law, the Commission concludes that the interpretation of the IMLL proffered by MEZ and LACI is incorrect and that neither Grain Belt Express' EPC, nor its subcontractors, could secure a valid mechanic's lien, or the right to enforce a mechanic's lien, against the entirety of a landowner's farm. Rather, they would have mechanic's lien rights (if any), and a right of foreclosure, only with respect to Grain Belt Express' easement. Grain Belt Express, as the holder of an easement right, cannot subject the fee of any landowner to a mechanic's lien by failing to pay for improvements installed only in the easement area. Grain Belt Express may by contract only create a mechanic's lien to the extent of its easement interest in the premises, if at all, and no further. *Williams v. Vanderbilt*, 145 Ill. 238, 34 N.E. 476 (1893). In *Williams*, the Court held that:

> The party with whom the contract is made by the person furnishing the labor or materials is only regarded as owner, within the meaning of the law, to the extent of the interest which he owns. It is that interest which is subjected to the lien. Hickox v. Greenwood, 94 Ill. 266. A tenant for life or years cannot, by contract, create a lien upon the fee. He may, by contract, create a lien to the extent of his right and interest in the premises, but no

further. McCarthy v. Carter, 49 Ill. 53; Judson v. Stephens, 75 Ill. 255. (Williams, *Id*. at 476-77.)

Consistent with *Williams*, the Court in *Matanky Realty Group v. Katris*, 367 Ill.App.3d 839 (1st Dist. 2006) held that the "other interest" referenced in §1 of the IMLL "does not include easement rights when the improvements at issue were solely made on that easement and not in connection with any improvements to the principal property" and that the improvements made to the easement area in *Matanky* "[were] not sufficiently connected [to the defendants' property] where no work was performed on the principal property." *Id.* at 843. Accordingly, the contractor's claim for a mechanic's lien on the defendant's property based on work done in the easement area was held invalid. *Id.* Similarly, the transmission structures Grain Belt Express would construct in the easement area are wholly unrelated to the function and operation of the landowners' property, which is used for farming.

Although, unlike in *Matanky*, Grain Belt Express' transmission structures will be constructed within the Grain Belt Express easement on the landowners' property, rather than within an easement adjacent to the principal property, that fact does not change the analysis. *Water Products Co. of Illinois, Inc. v. Gabel*, 120 Ill.App.3d 668 (2nd Dist. 1983) (holding that a contractor did not have a valid lien in connection with the installation of a water main beneath certain lots because the water main was not connected to any work performed on the lots); *McClintic-Marshall Co. v. Ford Motor Co.*, 254 Mich. 305, 236 N.W. 792 (1931) (holding that no mechanic's lien could be enforced against the dominant or servient estates for labor and materials furnished for the improvement of an easement area).

The Commission concludes that MEZ and LACI misconstrue, and ignore the case law interpreting, the statutory language that restricts a potential lienor's rights to only the property interest held by the owner, i.e., the party with which the potential lienor contracts. This principle stems from the language of the IMLL, which provides in part that the lien shall extend "to an estate in fee, for life, for years, or any other estate or . . . interest that **the owner may have in the lot or tract of land at the time of making such contract**." 770 ILCS 60/1(a) (emphasis added). In this instance, the interest of the owner – i.e., Grain Belt Express, not the landowner – will be limited to the easement. Grain Belt Express will not have any interest in the entirety of the landowners' properties, other than the easement interest. Accordingly, since Quanta's contract will be with Grain Belt Express, and not with any of the landowners, Quanta's lien rights (and those of tis subcontractors) would be limited to Grain Belt Express' easement. Thus, the Commission finds no merit in MEZ's contention that Quanta, or its subcontractors, might obtain rights to a mechanic's lien against the entirety of her farm if she signs an easement agreement with Grain Belt Express. MEZ cites no authority, and we have not found any, to support her theory that, by signing an easement with Grain Belt Express, she would create a mechanic's lien right in favor of Quanta or its subcontractors, where none otherwise exists, by "knowingly permitting" Quanta to construct the Line on her property. Further, MEZ has continuously and vociferously resisted Grain Belt Express' application in this case. Thereafter signing an easement agreement does not constitute "knowing permission" of a kind that could create any such mechanic's lien in favor of Quanta or its subcontractors.

Further, the Commission observes, from a practical perspective, that contractors and materials suppliers exercise mechanic's lien rights when they are not paid by their

counterparties for services and materials supplied. This illustrates the benefits of the financing condition being imposed as a requirement of the CPCN issued in this case, as it will ensure that Grain Belt Express has secured sufficient financing to cover the entire cost of constructing the Project before it commences to construct any transmission facilities on easements acquired from landowners.

F. Landowner Concerns about Impacts of Construction on their Properties

1. Grain Belt Express' Position

During this proceeding, LACI, CCPO, and MEZ landowner witnesses submitted testimony expressing concerns about potential impacts of the Project on agricultural property or operations. Grain Belt Express summarized these landowner concerns as follows: (i) that the Project will cause soil compaction to agricultural land; (ii) that the Project will damage drainage tiles; (iii) that the Project will limit aerial application of fertilizer, insecticides and pesticides; (iv) that the Project will limit landowners' use of their land by reducing the amount of land available to farm and interfering with modern farming equipment; (v) that the Project will damage wetlands, forests, historical sites and other conservation areas; (vi) that the Project will interfere with Global Positioning System ("GPS") guidance systems; and (vii) that the Project will obstruct scenic landscapes. GBX states that, as set forth in the testimony of witnesses Lawlor, Jones, and Gaul, it has demonstrated that it will address and resolve these concerns in a fair and reasonable manner, will reasonably mitigate and remediate any damage, and will adequately compensate landowners for damages to their property. GBX IB at 134-135.

a. Agricultural Impact Mitigation Agreement

Grain Belt Express states that it entered into an AIMA with the Illinois Department of Agriculture. GBX Ex. 7.0 at 24; GBX IB at 135. GBX states that it understands the Commission typically expects applicants for certificates to construct transmission lines and pipelines to enter into an AIMA. The AIMA (GBX Ex. 7.15) sets forth a series of requirements that the Department of Agriculture has determined appropriately protect agricultural landowners from potential impacts of the Project. GBX IB at 135. GBX explains that the AIMA specifies, in relevant part, that: (1) Grain Belt Express will discuss pole placement with landowners so as to minimize interference with cropland (AIMA Section 3(C)); (2) for tangent structures (straight-line, non-turning structures), Grain Belt Express will use only single, drilled pier type concrete foundations or direct embed type foundations that are typical of single pole type structures (AIMA Section 3(A)); (3) Grain Belt Express will not use multi-foundation lattice type structures for tangent structures though such structures may be used for turns, long spans such as river crossings, and similar situations where specific engineering and environmental challenges are present (AIMA Section 3(A)); (4) Grain Belt Express will avoid the use of guy wires (AIMA Section 3(B)); (5) temporary and permanent access roads on landowner property, if needed, will be located by agreement with the landowner (AIMA Section 4(B) and (C)); (6) proposed transmission structure locations will be relocated, to the extent reasonably possible, to avoid interference with drain tile (AIMA Section 5(B)); (6) Grain Belt Express will repair, or will compensate landowners for, damaged drain tile; a landowner can also retain his own contractor to repair damaged drain tile and be reimbursed by Grain Belt Express (AIMA Section 5(D) and (E)); (7) Grain Belt Express will decompact cropland to a depth of 18 inches and pasture land to a depth of 12

inches (AIMA Section 7(B)); and (8) Grain Belt Express will repair any damage to soil conservation practices and will work with landowners to prevent excessive erosion (AIMA Sections 9 and 10). GBX IB at 135-136.

Grain Belt Express explains that the AIMA also provides that its terms will be incorporated into its easement agreements with landowners. GBX Ex. 7.0 at 24; GBX Ex. 7.15, Section 19(D); GBX IB at 136. GBX further explains that the prevention and mitigation measures specified in the AIMA are not "one-size fits all" measures that Grain Belt Express and its EPC contractor will apply in all instances without regard for the landowner's preferences. GBX Ex. 7.22 at 3; GBX IB at 136. GBX states that it is committed to working with landowners to negotiate additional reasonable measures for prevention and mitigation of potential impacts to the landowner's property. GBX Ex. 7.22 at 3; GBX IB at 136.

Additionally, Grain Belt Express states that as set forth in the AIMA, it has agreed to employ an independent agricultural inspector (an "IAI") to verify compliance with the provisions of the AIMA by Grain Belt Express and its contractors and to vest the IAI with authority to stop the contractors' construction activities that the IAI determines are out of compliance with the AIMA . GBX Ex. 7.15 at 7 (AIMA Section 13); GBX IB at 136. GBX explains that because the IAI will report to Grain Belt Express directly, rather than to the construction contractor, the IAI will be independent from the internal supervisory chain of the construction contractor and will be authorized to order the construction contractor to change its practices and to stop work in the event of a divergence between the landowner agreements and practices in the field. GBX Ex. 7.0 at 25; GBX IB at 136-137. Grain Belt Express states that landowners' interests will be protected both by the terms of their easement agreements and by the terms of the AIMA. GBX IB at 137.

Finally, Grain Belt Express states it will commit to the measures set forth in the Commission's order granting a CPCN to Rock Island Clean Line LLC to address landowner concerns about potential impacts to agricultural properties. GBX Ex. 7.0 at 25; GBX IB at 137. These measures, as stated in the Order in Docket 12-0560 at pages 202-204, are listed on Grain Belt Express Exhibit 7.16. GBX explains that many of these measures are also specified in the AIMA. GBX Ex. 7.0 at 25; GBX IB at 137.

Grain Belt Express responded to MEZ's assertion that the AIMA defines "prime farmland" but the terms of the AIMA treat such land "no differently than it would a brownfield site." MEZ IB at 21. GBX states that MEZ fails to cite to any basis for this assertion, and ignores the plain terms of the AIMA. GBX Ex. 7.15; GBX IB at 135-137; GBX RB at 87-88. Grain Belt Express explains that the AIMA is between Grain Belt Express and the Illinois Department of Agriculture and sets forth terms that the Department of Agriculture has determined meets its requirements to minimize and mitigate impacts to agricultural properties. GBX Ex. 7.0 at 24; GBX IB at 135; GBX RB at 88. Grain Belt Express also points out that the terms of the AIMA are essentially the same terms set forth in the AIMA for the Rock Island project, which this Commission (i) determined was sufficient and appropriate for addressing landowners' concerns regarding construction-related impacts to land, and (ii) ordered that Rock Island comply with as a condition of the order. Order in Docket 12-0560 at 202-205; GBX RB at 88.

Grain Belt Express addressed IAA's assertion that Grain Belt Express should be held to the terms of the AIMA (IAA IB at 45), by stating that by executing the AIMA, it has agreed to comply with its terms; it has also agreed to incorporate the terms of the

AIMA into each of the easement agreements. GBX Ex. 7.0 at 24; GBX Ex. 7.15 at 8; GBX RB at 89. GBX reiterates that in the Rock Island CPCN order, the Commission adopted a set of requirements that Rock Island must follow to avoid, mitigate and remediate adverse impacts on agricultural properties from construction activities, and that Grain Belt Express has proposed that this same set of requirements be specified as requirements in the CPCN order for this Project. GBX Ex. 7.0 at 25; GBX Ex. 7.16; GBX IB at 110; GBX RB at 89.

Grain Belt Express notes that LACI cites to the Missouri PSC's Order as support for its argument that landowners will experience agricultural impacts from the Project. LACI IB at 50-51; GBX RB at 90. GBX states that while the Missouri PSC Order refers to concerns regarding agricultural impacts, it contains no discussion of the measures Grain Belt Express has committed to carrying out to address those concerns. GBX Ex. 7.22 at 13; GBX RB at 90. In contrast, this Commission's Order granting Rock Island a CPCN recognized and approved the measures Rock Island committed to carrying out to avoid, minimize and mitigate agricultural impacts. GBX Ex. 7.16; GBX Ex. 7.22 at 13; Order in Docket 12-0560 at 202-205; GBX RB at 90.

b. Soil Compaction

Grain Belt Express states that it recognizes that a certain level of soil compaction can be expected to occur in the construction of the Project on agricultural property. GBX IB at 137. Grain Belt Express states that it and its contractors will take steps to avoid or minimize soil compaction; Grain Belt Express will use chiseling and other approved means to remediate any soil compaction that occurs; and will compensate landowners for damages they incur associated with any soil compaction caused by the construction or maintenance of the Project, including compensation for crop damage and loss. GBX Ex. 7.0 at 23, 26; GBX Ex. 7.22 at 4-5; GBX IB at 137. Grain Belt Express explains that its mitigative actions, including the ones described below, are subject to modification and negotiation with the affected landowners. GBX Ex. 7.15 at 1; GBX IB at 137.

Grain Belt Express states that it and its EPC contractor, Quanta, will employ several construction methods that are designed to avoid or limit soil compaction. Grain Belt Express explains that Quanta will minimize the amount of acreage to be traversed by vehicles and equipment, by developing a construction access plan with relatively narrow access routes to the construction sites. GBX Ex. 7.22 at 4; GBX Ex. 9.0 at 17; GBX IB at 137-138. GBX states that the parcel-specific access plan will be designed to confine construction traffic to small areas of the impacted parcels; generally, traffic paths will be approximately 10 to 20 feet wide between structures, expanding to squares of approximately 100 feet by 100 feet to be used for construction pads for the assembly and erection of support structures, as well as for conductor pulling or tensioning sites in certain locations. GBX Ex. 7.22 at 4; GBX IB at 138.

Grain Belt Express further explains that Quanta will employ the following avoidance measures: (i) Quanta will keep heavier equipment in the right-of-way overnight to reduce the frequency of ingress and egress to structure locations; (ii) Quanta will use crew cab trucks and truck cranes to access the construction locations, using established access or construction pads; and (iii) Quanta will use tracked construction equipment, to the extent possible, which significantly reduces the pressure transmitted to the ground by the equipment by distributing the weight of the construction equipment over a larger area. GBX Ex. 9.0 at 17; GBX Ex. 9.4 at 1; GBX IB at 138.

Grain Belt Express explains that during periods of wet soil conditions, it and Quanta will take appropriate steps as needed, such as the use of temporary construction matting, to reduce any resulting soil compaction. GBX Ex. 7.22 at 5; GBX 9.0 at 17; GBX IB at 138. Grain Belt Express states that it is Quanta's practice to observe and follow weather and weather forecasts for inclement weather that may affect construction activities and their impacts on landowner properties. GBX Ex. 9.4 at 4; GBX IB at 138. GBX states that if inclement weather is experienced, Quanta evaluates the amount of precipitation that has or is forecasted to occur, the nature of the terrain and its drainage capabilities, the amount of moisture in the soil, and the types of construction vehicles or equipment that will need to be on the property for the next operation, and makes a determination as to whether construction can proceed on the property or whether it should be delayed in light of potential damage to the property. GBX Ex. 9.4 at 4; GBX IB at 138.

Regarding remediating soil compaction, Grain Belt Express has committed to decompact cropland where necessary to a depth of 18 inches, and pasture to a depth of 12 inches, as specified in the AIMA. GBX Ex. 7.15 at 5; GBX Ex. 7.22 at 5; GBX IB at 138. Grain Belt Express states that if landowners wish, it will apply fertilizer to disturbed soils in order to help restore fertility and to promote establishment of vegetative cover. GBX 7.15 at 6; GBX IB at 139. GBX also states that if landowners wish to self-perform the restoration work, or to specify other arrangements, Grain Belt Express and Quanta will comply with the landowner's reasonable requests. GBX 7.15 at 5; GBX Ex. 7.22 at 3; GBX Ex. 9.0 at 17-18; GBX IB at 139.

Grain Belt Express states that in the event that, despite the extensive avoidance and remediation measures employed, soil compaction still occurs, any impacts in terms of crop damage and loss, including reduced crop yields, will be limited to the relatively small portion of the easement property where construction activities occurred, and not the entire easement area. GBX Ex. 7.22 at 4; GBX IB at 139. Grain Belt Express estimates that the sum of the areas on which work will be performed or of the land that will be traversed by construction traffic is only approximately 20% of the total easement area. GBX Ex. 7.22 at 4; GBX IB at 139. GBX states that, in contrast, it will be compensating landowners for easement rights to the entire area covered by the easement, at 100% of the fair market fee value of the easement area, plus a separate payment for each structure placed on the landowner's property, as well as payments for crop damage. GBX 7.0 at 22-23; GBX Ex. 7.22 at 8, 11-12; GBX IB at 139. GBX states that this compensation package will pay the landowner in excess of the full fee value of the easement area (assuming at least one structure on the landowner's property), yet the landowner is allowed to continue to farm within the easement, except for the limited footprint occupied by the structure foundations. GBX Ex. 7.0 at 23; GBX 7.22 at 11-12, 15; GBX IB at 139.

Grain Belt Express states it will compensate landowners for soil compaction damages to the extent such losses are caused by construction or maintenance activities for the Project. GBX Ex. 7.0 at 23; GBX Ex. 7.22 at 8; GBX IB at 139. Grain Belt Express explains that there is no maximum period of time for which it will compensate landowners for soil compaction damages, and that per the terms of the AIMA, it is obligated to repair or pay for damages that either were not readily apparent at the time of construction or that occurred during maintenance work. GBX Ex. 7.15 at 1, 2, 7, 8; GBX 7.22 at 6; GBX IB at 139-140.

Grain Belt Express responded to LACI's assertion that construction of the Project will impact the soil because soil layers will be disturbed and the soil pH level will increase, which will lower the productivity of fields and deprive farm operations of income. Mr. Jones of Quanta explained that, unless a landowner requests that any removed soil be returned to the landowner or spread on the property, Quanta will arrange for removed soils to be hauled away and disposed of, thereby avoiding the mixing of various soil layers and avoiding any changes to soil pH levels. GBX Ex. 9.4 at 3, 5; GBX RB at 90-91. Further, Grain Belt Express explains that it has agreed to pay landowners (i) a one-time easement payment equal to 100% of the fair market value of the easement area, (ii) structure payments, which are to be paid in one lump sum or annually, as selected by the landowner, and (iii) additional payments for, inter alia, crop damage and crop loss. GBX Ex. 7.0 at 22-23; GBX IB at 132-133; GBX RB at 91. Accordingly, any landowners who see a reduction in crop yields will be compensated for any such losses, in addition to being paid the full, fair market value of the easement area and all structure payments. GBX RB at 91.

c. Drainage Tiles

Grain Belt Express states it has a plan to avoid damaging drainage tiles, and will repair any drainage tiles that become inadvertently damaged, or will compensate the landowner for the damaged drainage tile. GBX IB at 140. Grain Belt Express states that it (or its EPC contractor) will take proactive steps to address potential damage to farm drainage tile. GBX states that letters will be sent to landowners inquiring whether support structures would impact drainage tile systems. GBX Ex. 7.0 at 26; GBX IB at 140. Grain Belt Express further states that, when notified of potential impacts, it (or its EPC Contractor) will (i) to the extent reasonably possible, work to relocate structure locations away from drainage tiles to avoid conflict, and (ii) relocate the drainage tile or install new drainage tile at a new location, where feasible. GBX Ex. 7.0 at 26; GBX Ex. 7.15 at 5; GBX Ex. 7.22 at 7; GBX 9.0 at 18; GBX IB at 140. Grain Belt Express also states that it or its EPC contractor will visit local soil and water conservation districts to obtain information on the location of drainage tile, will consult other available documents that describe the location of drainage tiles, will consult with contractors that installed drainage tiles, and will meet with landowners and walk their fields, and that once drainage tiles are located, the possibility of damage can be reduced by using construction matting, for example, to minimize the possibility of impacting drainage tiles. GBX Ex. 7.22 at 7; GBX Ex. 9.0 at 18; GBX Ex. 9.4 at 1, 2; GBX IB at 140.

Grain Belt Express states that in the event that drainage tiles are nonetheless damaged by construction or maintenance of the Project, it will repair or replace (with equal or better quality) damaged drainage tiles, or will compensate landowners to make repairs. GBX Ex. 7.0 at 26; GBX Ex. 7.15 at 5; GBX Ex. 7.17 at 2; GBX Ex. 7.22 at 7; GBX IB at 140. GBX further states that even if the landowner later detects damage to drainage tile as a result of construction or maintenance activities by Grain Belt Express that was not readily apparent at the time of such construction or maintenance work, per the terms of the Easement Agreement, Grain Belt Express will be obligated to repair or pay for such damage. GBX Ex. 7.15 at 1, 2, 5, 8; GBX Ex. 7.17 at 2; GBX Ex. 7.22 at 6; GBX IB at 140.

d. Aerial Application Activities

Grain Belt Express states it is aware that the presence of overhead transmission

lines and other types of above-ground structures have the potential to impact aerial application; however, it does not agree with the premise, suggested by certain landowner witnesses, that transmission lines or other above-ground structures will materially interfere with or preclude the landowner from utilizing aerial application. LACI Ex. 1.0 at 2; CCPO Ex. 7.0 at 3; GBX IB at 141. GBX further states that it has considered minimizing impacts to aerial applicators in its route-selection process. GBX Ex. 7.22 at 8-9; GBX IB at 141.

Grain Belt Express explains that, as addressed in its Illinois Route Selection Study (GBX Ex. 8.2) and the Direct Testimony of Timothy Gaul (GBX Ex. 8.0), Grain Belt Express' siting guidelines included minimizing potential impacts to aerial spraying. GBX states that, in order to minimize potential impacts to aerial spraying, it sought to have the route of the transmission line parallel existing divisions of land, which reduces the number of structures located in the middle of fields and allows for aerial application parallel and adjacent to the transmission line. GBX Ex. 7.22 at 8-9; GBX IB at 141. Further, GBX states it has committed to (i) using single foundation support structures on agriculture lands, which have a smaller footprint and a narrower right-of-way than multi-foundation lattice type structures; and (ii) avoiding the use of guy wires in agriculture fields with tangent structures, to further reduce the overall footprint. GBX Ex. 7.15 at 4; GBX Ex. 7.16 at 2; GBX Ex. 7.22 at 9; GBX IB at 141.

Grain Belt Express states that the exact impact, if any, that the Project may have on the use of aerial application of chemicals is dependent on the orientation of each parcel of property and the agricultural operations on it, the placement of the transmission line, and the applicator's expertise and experience. GBX Ex. 7.22 at 8; GBX IB at 141. GBX states that it is committed to working with landowners to address their concerns as it relates to their specific parcel, and in accordance with the terms of the Easement Agreement, Grain Belt Express will fully compensate landowners for any damages, including reduction in crop yields, which are attributed to the construction or operation of the Project. GBX Ex. 7.22 at 8; GBX IB at 141-142.

e. Land Use

Grain Belt Express notes that landowner witnesses asserted that the Project will impact agricultural production by reducing the amount of land available to farm and by interfering with modern farming equipment. LACI Ex. 1.0 at 2; LACI Ex. 2.0 at 1-3; GBX IB at 142. Grain Belt Express explains that the Project will have a very minimal impact on farmland and its productivity. GBX Ex. 7.22 at 1; GBX IB at 142. The only land directly impacted by the Project will be the footprint of the foundation for the support structures; landowners will still be able to carry on agriculture activities within the right-of-way. GBX Ex. 7.22 at 1-2; GBX IB at 142. GBX has committed, through the AIMA, to using single foundation structures in agriculture land for tangent structures. GBX Ex. 7.22 at 2; GBX Ex. 7.15 at 4; GBX IB at 142. Additionally, per Section 3 of the AIMA, Grain Belt Express has committed to discussing pole placement issues with landowners. GBX Ex. 7.22 at 2, 11; GBX Ex. 7.15 at 4; GBX IB at 142. To the extent reasonably possible, support structures will be spaced in such a manner as to minimize their interference with cropland. GBX Ex. 7.22 at 2; GBX IB at 142.

Grain Belt Express explains that a typical tangent monopole or steel lattice mast foundation has a 6 to 8 foot diameter. GBX IB at 142. Grain Belt Express provided a diagram of the various structure types at page 5 of GBX Ex. 7.9. The footprint is

therefore roughly 0.0009 acre for a typical tangent monopole or steel lattice mast structure. GBX Ex. 7.22 at 2, 11; GBX IB at 142. These structures will be spaced every 1,000 to 1,300 feet (or 4-6 per mile). GBX Ex. 7.22 at 2; GBX IB at 142. GBX states that based on the estimated number of structures in Illinois, a total of approximately 1.7 acres across the state will be taken out of production or other use by the support structures and associated foundations. GBX Ex. 7.22 at 2; GBX IB at 142. Additionally, in accordance with Section 3(D) of the AIMA, Grain Belt Express will provide GPS coordinates of all structures to landowners and tenants, which will allow landowners and tenants to navigate more precisely around such structures using GPS. GBX Ex. 7.15 at 4; GBX Ex. 7.22 at 11; GBX IB at 142. Moreover, GBX is offering compensation to landowners through easement payments of full fair market value for the entire area of the easement (even through the owner will be able to farm the easement area except for the area of the support structure foundation), as well as separate payments for each support structure on the property, and crop or other damage payments. GBX Ex. 7.22 at 11-12; GBX IB at 143.

Grain Belt Express addressed MEZ's allegation that much of the land that would be traversed by the Project is prime farmland. MEZ IB at 21. Grain Belt Express responded that it estimates that only approximately 1.7 acres of land in the State of Illinois will be taken out of production for use by the Project's support structures and associated foundations. GBX Ex. 7.22 at 2; GBX IB at 142; GBX RB at 88. Grain Belt Express also responded to MEZ's assertion that the Project will increase the time and expense for landowners to perform farming operations within the easement and around the transmission structures. MEZ IB at 21. GBX states that it is offering to pay landowners both (i) a one-time easement payment equal to 100% of the fair market value of the easement area, and (ii) structure payments, which are to be paid in one lump sum or annually, as selected by the landowner. GBX contends, therefore, that for landowners with at least one transmission structure on their land, Grain Belt Express will have compensated them in excess of the full, fair market value of the easement area. GBX Ex. 7.0 at 22-23; GBX IB at 132-133; GBX RB at 88. GBX states that its compensation package reasonably compensates landowners for any additional time and expense incurred to farm around transmission structures. GBX RB at 88.

f. Environmental and Cultural Impacts

Grain Belt Express responded to landowner witnesses' concerns that the Project could damage existing forests, wetlands, historical sites and other conservation areas. LACI Ex. 1.0 at 2; CCPO Ex. 6.0 at 16; GBX IB at 143. Grain Belt Express explains that the landowner witnesses' concerns regarding damage to historical and conservation areas are unfounded. GXB states that avoidance of impacts to the natural environment was an important factor in developing the Proposed Route in Illinois. GBX Ex. 7.22 at 19-20; GBX IB at 143. In developing the Proposed Route, Grain Belt Express was able to avoid impacting wetlands, conservation areas and large contiguous forested areas. GBX Ex. 7.22 at 19-20; GBX IB at 143. Additionally, Grain Belt Express took extensive measures to identify and map sensitive habitat and listed species, in consultation with relevant state and federal agencies, and conservation organizations. GBX Ex. 7.22 at 21; GBX IB at 143. This information was taken into account in developing the Proposed Route so that crossing or proximity to such areas was avoided or minimized. GBX Ex. 7.22 at 21; GBX IB at 143.

Grain Belt Express notes that one landowner witness also questioned why an

Environmental Impact Study was not conducted. LACI Ex. 1.0 at 2; GBX IB at 143. GBX states that the Project in Illinois is not a major federal action under the National Environmental Policy Act, and therefore, preparation of an Environmental Impact Statement is not required. GBX Ex. 7.22 at 19; GBX IB at 143. However, Grain Belt Express states that it has very extensively studied the environmental impacts associated with the Project, and environmental impacts were considered when developing the Proposed Route. GBX Ex. 7.22 at 20; GBX IB at 143. Further, GBX has consulted with federal agencies, including the U.S. Fish and Wildlife Service ("USFWS") and the U.S. Army Corps of Engineers, and state agencies, including the Illinois Department of Natural Resources ("IDNR") and Illinois Historic Preservation Agency, as well as with conservation organizations like the Illinois Nature Conservancy, and other entities regarding measures to avoid, minimize and mitigate environmental impacts from the Project. GBX Ex. 7.0 at 28-29; GBX Ex. 7.22 at 20; GBX IB at 143-144. The Route Selection Study (GBX Ex. 8.2) outlines the extensive measures taken to avoid and minimize environmental impacts. Additionally, pages 28-29 of GBX Exhibit 7.0 list all federal and state government department and agencies with whom Grain Belt Express has been in contact regarding the Project. GBX IB at 144, note 124.

Grain Belt Express states that it will follow all state and federal regulations and requirements of agencies with jurisdiction over threatened and endangered species, and will coordinate with state and federal agencies to ensure the Project complies with all laws pertaining to wetlands, forests and conservation areas. Further, appropriate state and federal agencies will have jurisdiction over issuing permits to Grain Belt Express concerning potential impacts to environmental and cultural resources, which will enable applicable statutory and regulatory requirements of those agencies to be enforced. GBX Ex. 7.22 at 20-21; GBX IB at 144.

Grain Belt Express responded to LACI's allegation that the Project also will impact forested areas and wildlife, specifically that the Project will require the removal of five acres of trees from CCPO witness Ms. Locke's property, resulting in a loss of carbon sequestration credits and marketable timber, and that Ms. Kleinik Davis may no longer be able to photograph wildlife and may see a loss of bald eagles on her property. LACI IB at 51-52; GBX RB at 91. Grain Belt Express explained the steps it took, in developing the Proposed Route, to avoid or minimize potential impacts to existing forests and other conservation areas, in §V.F.5 of its Initial Brief. GBX RB at 91. Grain Belt Express also addressed the land-specific concerns raised by Ms. Kleinik Davis and Ms. Locke, in §V.F.8.c and §V.F.8.f of its Initial Brief. GBX RB at 91.

g. GPS Guidance Systems

Several landowner witnesses raised concerns about transmission line interference with Global Positioning Systems. LACI Ex. 1.0 at 2; CCPO Ex. 3.0 at 4-5; CCPO Ex. 4.0 at 6-7; CCPO Ex. 7.0 at 3; GBX IB at 144. Grain Belt Express explains that a GPS is a space-based navigation system that depends on a series of geosynchronous satellites to provide time and location signals to receivers on earth. GBX Ex. 2.5 Rev. at 8; GBX IB at 144. GBX states that the transmission line should not interfere with the proper operation of a GPS guidance system. GBX Ex. 7.22 at 12; GBX IB at 144. GBX states that concerns about potential interference with GPS systems relate to "corona," which in the context of transmission lines refers to radio noise that, if strong enough, can create interference with signal reception in a certain band of frequencies in the electromagnetic spectrum. Corona primarily produces radio

noise in the range of 0.1 megahertz ("MHz") to 10 MHz. GBX Ex. 2.5 Rev. at 8; GBX IB at 144. However, the frequencies at which GPS systems operate are far higher than frequency ranges of significant corona noise produced by transmission lines. GBX Ex. 7.22 at 12; GBX IB at 144-145. GPS systems transmit at frequencies far above the radio noise potentially created by transmission lines; GPS satellites and receivers are operating in the range above 1000 MHz. GBX Ex. 2.5 Rev. at 9; GBX IB at 145. GBX states that, additionally, Real Time Kinematic ("RTK") systems, which are ground-based controls used to make differential calculations and improve positional accuracy of GPS, transmit and receive terrestrial signals typically at Ultra High Frequencies which are greater than 300 MHz. GBX Ex. 2.5 Rev. at 9; GBX IB at 145. GBX states that since both GPS, and the terrestrial signals on which RTK systems rely, are at far higher frequencies than the upper range of frequencies of significant corona noise, it is highly unlikely that the terrestrial signals for RTK systems and the satellite signals for GPS would be affected by corona noise from the HVDC transmission line. GBX Ex. 2.5 Rev. at 9-10; GBX Ex. 7.22 at 12; GBX IB at 145.

Further, Grain Belt Express notes that physical obstruction from transmission lines or structures is very unlikely to affect GPS systems. GBX Ex. 2.5 Rev. at 10; GBX Ex. 7.22 at 12; GBX IB at 145. GBX explains that GPS guidance systems employ multiple (normally four or more) satellites to communicate with a moving piece of farm equipment. GBX Ex. 2.5 Rev. at 10; GBX Ex. 7.22 at 12; GBX IB at 145. If there is a momentary interference with one satellite signal due to the location of the equipment and the transmission line (i.e., an obstruction of the signal from a satellite), other satellite signals will enable reliable operation of the GPS to continue. GBX Ex. 2.5 Rev. at 10; GBX Ex. 7.22 at 12; GBX IB at 145. GBX states that thus, it is very unlikely that a transmission line or structure, which would only physically block satellite signals from one direction, could cause the loss of a GPS signal. GBX Ex. 2.5 Rev. at 10; GBX IB at 145. However, in the very unlikely event that any interference was shown to occur, Grain Belt Express would discuss mitigation and other potential remedies with the individual landowner. GBX Ex. 2.5 Rev. at 10; GBX IB at 145.

h. Visual Impacts

Grain Belt Express notes that several landowner witnesses expressed concern that the Project would obstruct scenic landscapes. LACI Ex. 1.0 at 2; CCPO Ex. 2.0 at 1; CCPO Ex. 3.0 at 1; GBX IB at 145. GBX states that avoidance of impacts to the natural environment was an important factor in identifying the Proposed Route. GBX Ex. 7.22 at 10; GBX IB at 145-146. GBX states that one of the main goals in siting the Project was minimizing the overall effect of the transmission line on the natural and human environment. GBX states that maximizing distance of the Proposed Route from residences is one way it reduced visual impacts. GBX Ex. 7.22 at 10; GBX IB at 146. GBX states that in some instances, following existing infrastructure allowed for a reduction in visual impacts. GBX Ex. 7.22 at 10; GBX IB at 146. GBX states that it worked with landowners and the public during the routing process to consider feedback on ways to minimize impacts. This feedback led to a number of changes to the route alignments to minimize or avoid visual impacts. GBX Ex. 7.22 at 10; GBX IB at 146.

i. Property Values

Grain Belt Express responded to LACI's argument that property values will suffer because of the Project. LACI IB at 52-54; GBX RB at 92. Grain Belt Express presented

the testimony and expert report of Richard Roddewig of Clarion Associates. GBX Exs. 12.0 and 12.1. Grain Belt Express stated that Mr. Roddewig has extensive experience and the qualifications to provide a summary of national real estate literature regarding impacts of transmission lines on property, to summarize his prior research into the effect of transmission lines on Illinois property, and to describe the effects of transmission line corridors on prices and rents for commercial and industrial properties. GBX Ex. 12.0 at 1-8; GBX RB at 92. Mr. Roddewig, is a certified Real Estate Appraiser in 18 states, including Illinois, is a licensed real estate broker in Illinois, holds professional designations from the Appraisal Institute, the Counselors of Real Estate, and the Royal Institute of Chartered Surveyors, and has legal experience in land use and zoning. GBX Ex. 12.0 at 2; GBX RB at 92-93 He has over 35 years of professional experience in the real estate industry and has spent over 25 years analyzing the impact of development, operation or expansion of power plants, airports, regional malls, landfills and quarries on property values. GBX Ex. 12.0 at 2-3; GBX RB at 93. at 2-3. Additionally, Mr. Roddewig has provided testimony in four transmission line proceedings before the Commission in which he analyzed sales data in studies concerning the possible impact of transmission lines on property values in Illinois. GBX Ex. 12.0 at 3; GBX RB at 93. He has also testified before multiple government agencies and courts regarding real estate valuation, market analysis and land use planning. GBX Ex. 12.0 at 4; GBX RB at 93. Mr. Roddewig both conducted studies and reviewed studies comparing the sales prices of real estate on which a transmission line corridor is located, or is close to a transmission line, to sales prices of comparable properties in the area that are not crossed by or near to a transmission line. Mr. Roddewig concluded that more than half of the published research has found that transmission lines do not negatively impact land values. Where adverse impacts have been found, Mr. Roddewig's analysis determined that those impacts are minor, and range from 2% to 7%. Further, adverse impacts generally are temporary. As landowners and buyers become accustomed to transmission lines, the land values tend to return to the initial price or higher. GBX Ex. 12.0 at 9, 13; GBX RB at 93.

LACI alleged that Mr. Roddewig conducted an outdated and inapplicable literature review, compared suburban land to agricultural land, and conducted an inappropriate study in Christian County. LACI IB at 53-54; GBX RB at 92. Grain Belt Express explained why LACI's arguments are unsupported. GBX RB at 92-96. First, Grain Belt Express states that Mr. Roddewig relied on his experience and expertise to conclude that the published studies and his own research do not support intervenor claims that the Project will "destroy" property values or cause values to decrease between 20% and 50%. GBX Ex. 12.0 at 9; GBX RB at 93. To the contrary, Mr. Roddewig found that more than half of the published research has found that transmission lines do not cause any impact on property prices and values. GBX Ex. 12.0 at 9; GBX RB at 93. He testified that where studies do find any adverse impacts, those impacts range from 2% to 7%. GBX Ex. 12.0 at 9; GBX RB at 93. However, these studies also find that any adverse impacts are temporary, meaning that when a transmission line is announced or installed, values may initially drop but then will return to the initial price or higher as buyers and sellers become comfortable with the transmission lines. GBX Ex. 12.0 at 13; GBX RB at 93. Mr. Roddewig explained that as required by standards of professional real estate appraisal practice, studies on this topic involve comparing the sales prices in actual sales of real estate on which a transmission line corridor is located, or is close to a transmission line, to sales prices of comparable properties in the area that are not crossed by or near to a transmission line, to identify

whether there are any identifiable differences in sales prices. GBX Ex. 12.0 at 11; GBX RB at 93, note 79. Further, GBX notes that contrary to LACI's assertion, including a study from the 1970s in his review of research does not make Mr. Roddewig's literature review outdated. LACI IB at 53; GBX RB at 93. LACI failed to acknowledge the over 40 other studies and reports upon which Mr. Roddewig relied. *See* GBX Ex. 12.1 Exhibit C; GBX RB at 94. Many of these studies and reports were published within the last ten years, some as recently as 2012 and 2014. GBX Ex. 12.1 Exhibit C; GBX RB at 94. GBX points out that the 1972 study LACI alludes to found little empirical evidence to support adverse price reductions of agricultural land due to transmission lines. GBX Ex. 12.0 at 20; GBX RB at 94. GBX states, in support of the continued relevance of this study, that two articles from 2012 support the same conclusion: there is no evidence to support the claim that transmission lines reduce agricultural land values. GBX Ex. 12.0 at 20; GBX RB at 94.

Grain Belt Express also responded to LACI's allegation that Mr. Roddewig's studies are inapplicable to the current situation because the properties do not all have the same soil conditions as the land over which the Project will cross, do not all involve corn-soybean crop rotation, do not have the same easement widths, and do not have uniform pole placement. LACI IB at 53; GBX RB at 94. GBX responds that Mr. Roddewig's literature review revealed that over the past 25 years, the conclusions from national sales data research studies have been very consistent. GBX Ex. 12.0 at 14; GBX RB at 94. The majority of those studies, from the 1980s, 1990s and 2000s, have found no adverse impacts on prices or values of homes and neighborhoods adjacent to transmission lines. GBX Ex. 12.0 at 14; GBX RB at 94. GBX states that the consistency of the studies for over 25 years undermines LACI's argument that simply because the conditions in the previous studies are not an exact match with the properties to be crossed by the Grain Belt Express transmission line, the studies are inapplicable. GBX states that the studies from the past 25 years did not all reflect the same conditions, but resulted in consistent outcomes. GBX Ex. 12.0 at 14; Tr. 692-694; GBX RB at 94. Because these studies look at a wide variety of different types of locations, properties, agricultural factors and soil types, variations in land conditions or pole placement do not make them inapplicable to the Project. Tr. 722-723; GBX RB at 94.

Grain Belt Express responded to LACI's argument that Mr. Roddewig's report should be disregarded because his comparisons of the impacts on land values in urban areas to rural areas "misses the mark" (LACI IB at 53). GBX states that Mr. Roddewig did not solely compare urban land to agricultural land. As detailed in Mr. Roddewig's testimony, he analyzed and conducted studies in a variety of areas, including suburban, exurban and rural. GBX Ex. 12.0 at 13-21; GBX RB at 94-95. For example, Mr. Roddewig reviewed studies focused on the impacts of transmission lines on agricultural land (GBX Ex. 12.0 at 20) and conducted studies on the impacts of transmission lines on Chicago suburb subdivisions (GBX Ex. 12.0 at 14-15) and land ranging from the suburbs of Chicago to 50 miles east of the Mississippi River (Tr. 708-709). GBX states that these studies all reflect the same conclusion: there is little to no impact on property values from proximity to a transmission line corridor and power lines. GBX Ex. 12.0 at 9, 13, 15-16, 20; GBX RB at 95.

Finally, Grain Belt Express explains that Mr. Roddewig's study of Christian County sales was an appropriate comparator to the potential impacts of the Project. Christian County is one of the counties that is crossed by the Proposed Route of the

Project (GBX Ex. 7.0 at 14), and it contains farm land that is crossed by existing transmission lines. GBX Ex. 12.1 at 28; GBX RB at 95. GBX states that Mr. Roddewig collected and analyzed farm land sale prices on existing power line corridors and compared them to prices paid for farm land not within a power line right-of-way. GBX Ex. 12.1 at 28; GBX RB at 95. As part of conducting his study, he personally drove through Christian County to observe all of the properties included in his study to identify whether they had any unique or unusual characteristics that would impact their sales prices. Tr. 724; GBX RB at 95. Grain Belt Express responded to LACI's argument that the Christian County study is an inappropriate comparator because Mr. Roddewig considered soil quality for the whole parcel, not just the easement, and because he did not account for potential access issues caused by the placement of transmission structures. LACI IB at 54; GBX RB at 95. GBX responds that this is nit-picking with Mr. Roddewig's study. GBX states that Mr. Roddewig's study compared sales of properties with transmission line right-of-way corridors to properties without corridors. GBX Ex. 12.1 at 31; Tr. 699; GBX RB at 95. Thus, those properties without a transmission corridor did not have an easement with which to compare soil classification to properties with an easement. Tr. 698; GBX RB at 95. Additionally, the county records upon which Mr. Roddewig relied provide the soil classification of each property. GBX Ex. 12.1 at 30; GBX RB at 95-96. Further, the study was designed to compare the impact of transmission corridors on total property values, not to appraise each individual property. Tr. 699; GBX RB at 96. GBX states that, as a result, the study looked at the property values as a whole and the total impacts of any transmission line corridor, which would necessarily include any potential variation in soil classification of the easement and any potential impact on landowner access. Tr. 698-699; GBX RB at 96.

Grain Belt Express responded to LACI's assertion that in the Christian County study, Parcel 19 on the map on page 29 of GBX Ex. 12.1 appears to be outside the physical placement of any poles. LACI IB at 54. However, GBX points out that Mr. Roddewig's report states that Parcel 19, 19A and 19B are all considered together as one parcel in comparing sales prices. GBX Ex. 12.1 at 30-31; GBX RB at 96, note 80. LACI also argues that Grain Belt Express' requested 200 foot right-of-ways are "extraordinary" and not likely needed for the lower voltage lines in Christian County. LACI IB at 54. Grain Belt Express responded that 200 feet is the maximum right of way that the Project will use and it will strive to use narrower rights of way wherever possible. GBX RB at 96, note 80. GBX states that LACI's contention does not detract from the validity of the Christian County study, which is based on comparisons of sales prices for properties with transmission lines to sales prices of comparable properties without transmission lines. GBX RB at 96, note 80. GBX states, moreover, that based on the concerns expressed by landowner witnesses, the primary concern about property value impacts appears to be the presence of the transmission structures and conductors, not the width of the easement, which the landowner can continue to use for farming purposes. GBX RB at 96, note 80.

Finally, Grain Belt Express addressed LACI's observation that the Christian County study found that properties impacted by the transmission line right-of-ways lost an average of 5.93% in value. LACI IB at 54. GBX states that this is an incomplete description of the results. GBX RB at 96. GBX states that Mr. Roddewig's study found that the average adjusted price of farm land with a transmission line corridor sold for 5.93% less than land without a corridor. GBX Ex. 12.1 at 32; GBX RB at 96. However, because one property without a transmission line right-of-way sold for a price over

double the average and another sold for one-third of the average price, using the median price may be more appropriate. GBX Ex. 12.1 at 32; GBX RB at 96. Mr. Roddewig testified that when using the median price, those properties with a transmission line corridor sold for 4.0% higher than properties without. GBX Ex. 12.0 at 21; GBX RB at 96. Thus, Mr. Roddewig testified, taking into account both the average price and median price, the impact on land values was no more than 2%. GBX Ex. 12.0 at 21; GBX 12.1 at 32; GBX RB at 96.

j. Health Impacts

Grain Belt Express responded to LACI's allegation that many landowners expressed concern about perceived health impacts from electric and magnetic fields ("EMF"). LACI IB at 54. Grain Belt Express witness Dr. Wayne Galli addressed landowner concerns regarding potential long-term health effects from EMF. Dr. Galli reviewed reports produced by governmental and other health organizations that themselves analyzed studies on long-term health effects of EMF. Dr. Galli concluded that the reports found that the scientific studies do not support the conclusion that EMF causes long-term health effects. Health organizations have developed EMF exposure limits, but only at levels found in certain special medical, research and industrial environments. The recommended exposure limits are 1000 times higher than EMF exposure from the Project. GBX Ex. 2.5 Rev. at 2-7; GBX RB at 96-97.

LACI asserts that Dr. Galli did not have the qualifications necessary to address these concerns and that Grain Belt Express did not provide competent evidence to refute landowner health concerns (which themselves were not based on expert testimony concerning any engineering, scientific or public health studies). LACI IB at 54-55. Grain Belt Express explains that as an initial matter, Dr. Galli did not analyze raw data and develop his own report on impacts of EMF on human health, and he did not testify as to whether EMF causes long-term health effects. Rather, Dr. Galli read and reviewed reports produced by governmental and other scientific and public health organizations that analyzed studies on long-term health effects of EMF, and reported those organizations' conclusions. GBX Ex. 2.5 Rev. at 4-5; Tr. 781-782; GBX RB at 97. None of those organizations found that the body of scientific studies establish that strong magnetic fields cause long-term health effects. GBX Ex. 2.5 Rev. at 5; GBX RB at 97. GBX states that these organizations have developed EMF exposure limits for the general public and for occupational workers, but only at levels found in certain special medical, research, and industrial environments. GBX Ex. 2.5 Rev. at 5; GBX RB at 97. The recommended exposure limits are 1000 times higher than the EMF exposure from the Grain Belt Express Project. GBX Ex. 2.5 Rev. at 5-6; GBX RB at 97.

Grain Belt Express further explains that with a Ph.D. in electrical engineering (GBX Ex. 2.0 at 1), Dr. Galli is qualified to read and report the results of reports that themselves analyze studies on long-term health effects of electric and magnetic fields. Additionally, as a degreed electrical engineer, Dr. Galli is qualified to calculate and report the strength of electric and magnetic fields produced by a transmission line and compare these field strengths with the recommended maximum EMF exposure limits and with the levels of electric and magnetic fields to which people are exposed in everyday life. GBX Ex. 2.5 Rev. at 2-4; GBX RB at 97. GBX states that, as a result, his testimony competently supports the conclusion that the electric and magnetic fields that will be produced by the transmission line are far below the recommended exposure limits established by governmental and health organizations, and are comparable if not

less than the field strengths encountered in normal daily activities. GBX RB at 97.

k. Decommissioning

Grain Belt Express also responded to LACI's argument that the Project is at risk of being decommissioned, which would leave landowners with transmission structures on their land. LACI IB at 55. GBX stated that this argument is without merit. Grain Belt Express witnesses Mr. Lawlor and Mr. Skelly and Commission Staff witness Ms. Freetly, when questioned, all stated that they are unaware of any high voltage transmission line that has been decommissioned. Tr. 172-173, 238, 288, 338-339; GBX RB at 98. Grain Belt Express anticipates that the transmission line will be in existence for 50 to 100 years. Tr. 287; GBX RB at 98. GBX states that before constructing the Project, it will have long-term contracts in place that will ensure the Project will be financially viable for several decades. Tr. 173; GBX RB at 98.

Grain Belt Express states, further, that a transmission line is a valuable asset and continues to be useful even if its owner were to encounter financial difficulties. If a transmission line owner encounters serious financial difficulties, the most likely outcome will be that the company undergoes a financial reorganization or the transmission line is sold to another entity. Thus, the original owner may no longer operate the line, but another company will likely acquire the line as a valuable asset. GBX states that there is no reason to assume, and LACI offers no examples or support for the assertion, that a transmission line will stop operating and be left standing in the field without an owner to operate and maintain the line. GBX RB at 98.

l. Landowners' Property-Specific Concerns

Grain Belt Express notes that CCPO, LACI and MEZ landowner witnesses expressed concerns about the impacts of the transmission line on their properties or operations, and that many of these concerns mirror the general concerns discussed by Grain Belt Express (summarized in the immediately preceding subsections of this Order). GBX IB at 146. A total of seven landowner intervenor witnesses expressed concerns about the specific impacts of having the transmission line on their properties. Grain Belt Express reiterates that it is fully committed to working with all landowners to understand parcel-specific concerns and to develop plans to address them. GBX Ex. 7.22 at 3; GBX IB at 146. The property-specific concerns expressed by landowner witnesses who submitted testimony, and GBX's responses, are discussed below.

i. Mr. Michael Buchanan's Property-Specific Concerns

Mr. Michael Buchanan expressed concern over the impact of the Project on a recently installed tile system on his property. CCPO Ex. 5.0 at 2-3. Grain Belt Express states that it routed the transmission along parcel boundaries when possible and practical to minimize impacts to tile drainage systems generally. GBX Ex. 8.11 at 8; GBX IB at 147. However, ultimately, site-specific surveys will identify the location of and the need to implement measures to avoid and mitigate impacts to drainage infrastructure in the placement of specific structure locations for the Project. GBX Ex. 8.11 at 8; GBX IB at 147. Grain Belt Express states that it is committed to mitigating impacts to drainage tile and to repair drainage tile in the event of damage caused by construction or operation. GBX Ex. 7.22 at 6-7; GBX IB at 147.

ii. Mr. Kendall Cole's Property-Specific Concerns

Mr. Kendall Cole expressed concern that the Proposed Route could eliminate a prime building site for the recently consolidated North Mac School District. CCPO Ex. 4.0 at 4. In response, Grain Belt Express notes that during the public meetings, members of the Routing Team worked with Mr. Cole to modify the route to avoid impacts to portions of his property designated for commercial, residential, and industrial development. GBX Ex. 8.11 at 7; GBX IB at 147. GBX states that the alignment of the Proposed Route was developed in coordination with Mr. Cole to avoid a proposed development project between the rail lines south of Virden. GBX Ex. 8.11 at 7; GBX IB at 147. GBX states that at that time, Mr. Cole did not provide any information concerning the potential for impacting a suitable site for the North Mac School District. GBX Ex. 8.11 at 7; GBX IB at 147. Thus, Grain Belt Express appropriately and proactively adjusted the route in response to the information that Mr. Cole did bring it its attention during the public outreach process. GBX IB at 147.

iii. Ms. Kendra Kleinik Davis' Property-Specific Concerns

Ms. Kendra Kleinik Davis expressed concern that the Project will run along the edge of two fields and then will split another field when the transmission line makes a 90-degree turn. LACI Ex. 2.0 at 2. Grain Belt Express explained that the Proposed Route in this area follows parcel and land ownership boundaries to the greatest extent possible to minimize impacts to landowners and farming operations, to maximize distances from residences, and to avoid crossing a quarry. GBX IB at 148. While the Proposed Route makes one 90-degree turn while on Kleinik property, the turn is located on the boundary of four parcels owned by three distinct landowners. GBX Ex. 8.11 at 3; GBX IB at 148. Locating the structure at the junction of four parcels reduces the footprint on any one landowner's property and minimizes the impacts on the landowners by utilizing existing divisions of land and not splitting farm fields. GBX Ex. 8.11 at 3-4; GBX IB at 148. GBX explained that the reason the transmission line takes a 90-degree turn in this location is to avoid coming in close proximity to several residences farther to the east along E 250 Road as well as other residences in the general area. GBX IB at 148. By turning south at this location and then back to the east just south of the Kleinik Davis properties, the Proposed Route maintains alignment along existing divisions of land, avoids coming in close proximity to any residences in this area, and avoids a quarry further to the east. GBX Ex. 8.11 at 3-4; GBX IB at 148.

Ms. Kleinik Davis also expressed concern that the Project will restrict hunting opportunities on her land. LACI Ex. 2.0 at 5. Grain Belt Express states that it anticipates that hunting activities can continue during construction, operation, and maintenance, subject to safety considerations for hunters and construction personnel. GBX Ex. 7.22 at 17; GBX IB at 148. Further, Grain Belt Express will make efforts to avoid interference with hunting activities during construction, and anticipates that any restrictions on hunting would be determined based on site-specific conditions and/or in coordination with landowners. GBX IB at 148. However, it is Grain Belt Express' experience that the presence of the transmission line, once constructed, is not expected to impact hunting, and in some cases, the cleared right-of-way may provide an opening for food plots and deer stands on the outside edge. GBX EX. 7.22 at 17; GBX IB at 148.

Lastly, Ms. Kleinik Davis stated that bald eagles have begun to show up on her

property. LACI Ex. 2.0 at 5. GBX states that bald eagles are protected by the federal Bald and Golden Eagle Act and the Migratory Bird Treaty Act. GBX Ex. 8.11 at 4; GBX IB at 148-149. As a result, Grain Belt Express will coordinate with the USFWS and IDNR to evaluate potential risks to avian species and to develop specific protection measures to avoid and minimize potential impacts to eagles. GBX IB at 149. GBX states that implementing an Avian Protection Plan will enable it to construct the Project through areas potentially inhabited by eagles. GBX Ex. 8.11 at 4; GBX IB at 149.

iv. Mr. Ervil "Wayne" Fisher Jr.'s Property-Specific Concerns

Mr. Ervil "Wayne" Fisher Jr. expressed concern that the Project will impact graves around a Kaskaskia Native American village site. CCPO Ex. 3.0 at 1-2. Grain Belt Express notes that Mr. Fisher's property is not located along the Proposed Route, but rather is located along the Alternate Route, which follows along the southern boundary of his property for 0.25 miles. GBX Ex. 8.11 at 4; GBX IB at 149. GBX states that no party is advocating that the Alternate Route, rather than the Proposed Route, should be adopted in this area. Further, GBX states that the site report, which Grain Belt Express obtained from the IDNR Historic Preservation Office, indicated a small site that was pedestrian surveyed in 1967; however, the presence or absence of graves is not mentioned in the report. GBX Ex. 8.11 at 5; GBX IB at 149. GBX states that the Alternate Route crosses only a small, easily spannable portion of the boundaries of the site as mapped by the Historic Preservation Office. Field survey will be required to confirm the site boundaries and determine the specific location of sensitive underground resources that should be avoided for structure placement, and/or any other mitigation measures required. GBX Ex. 8.11 at 5; GBX IB at 149. GBX states that in developing the Proposed Route and Alternate Route, the Routing Team coordinated with state and local agencies to identify known historic and archaeological resources, in order to avoid such resources to the extent possible and practical. GBX Ex. 8.11 at 5; GBX IB at 149. Grain Belt Express states that it will continue to coordinate with the Illinois State Historic Preservation Office throughout the permitting and approval process, and the final design of the Project will provide for any potential impacts to archaeological resources to be avoided or if necessary mitigated through structure placement or other methods. GBX Ex. 8.11 at 5-6; GBX IB at 149-150.

Mr. Fisher also expressed concern that residential building sites on his land will be "just feet" from the path of the transmission line. CCPO Ex. 3.0 at 4. Grain Belt Express again noted that his property is crossed by the Alternate Route, not the Proposed Route. GBX IB at 150. Further, the nearest existing house to the Alternate Route on property owned by Mr. Fisher is approximately 1,400 feet north of the route, on a parcel north of 925 N Road that is not crossed by the Alternate Route. GBX IB at 150. GBX states that the remaining site buildings are approximately 1,200 feet north of the Alternate Route. GBX Ex. 8.11 at 6; GBX IB at 150.

Finally, Mr. Fisher expressed concern that the tree line on his property where deer stands are located will be destroyed. CCPO Ex. 3.0 at 5. Grain Belt Express states that, using Geographic Information System software and available aerial photography, it estimates that 0.8 acres of woodlands would be cleared within the Project right-of-way on Mr. Fisher's property, were the Alternate Route to be adopted. GBX IB at 150. The exact amount of timber that would need to be cleared would be determined following land surveys. GBX Ex. 8.11 at 6; GBX IB at 150.

v. Mr. Joseph Gleespen's Property-Specific Concerns

Mr. Joseph Gleespen expressed concern that the Project would impact the drainage tile and terraces on his property and that the AIMA places the burden on the landowner to enforce the agreement. CCPO Ex. 1.0 at 2. In response, Grain Belt Express explains that it is committed to mitigating impacts to drainage tile and to repair drainage tile in the event of damage caused by construction or operation. GBX Ex. 7.22 at 6-7; GBX IB at 150. Additionally, Grain Belt Express states that a requirement for an Independent Agricultural Inspector is included in Section 13 of the AIMA to provide a simple mechanism to ensure compliance by Grain Belt Express and its contractor with the provisions of the AIMA and any other agreements negotiated with landowners. GBX Ex. 7.22 at 13; GBX IB at 150. The name and contact information of the IAI will be provided to landowners prior to the start of any construction on their property. GBX Ex. 7.22 at 13; GBX IB at 150-151. GBX states that the IAI has the authority to halt construction (or any specific inappropriate activities) in the event activities occur that are in violation of the AIMA or other agreements. Further, the Easement Agreement between the landowner and Grain Belt Express will incorporate compliance with the AIMA as an obligation of Grain Belt Express, so the landowner will have the remedies available under the easement agreement in the event of a default by Grain Belt Express. GBX Ex. 7.22 at 13; GBX IB at 151.

vi. Ms. Natalie Locke's Property-Specific Concerns

Ms. Natalie Locke expressed concern that she will lose CO2 sequestration credits and income from timber operations because the Project will require cutting down over five acres of trees on her property. CCPO Ex. 6.0 at 3-5, 16-17. However, Grain Belt Express notes that Ms. Locke's property is not located along the Proposed Route, but rather on the Alternate Route, which no party is advocating be adopted in this area. GBX Ex. 8.11 at 9; GBX IB at 151. GBX states that in the area of Ms. Locke's property, the Alternate Route parallels the existing Neoga-Shelbyville 138 kV Ameren transmission line, passing diagonally through Ms. Locke's property for 0.23 miles. GBX Ex. 8.11 at 10; GBX IB at 151. GBX states that under the Easement Agreement, it will compensate landowners for commercially marketable timber based on prevailing market value. GBX Ex. 7.22 at 18; GBX IB at 151. GBX states that part of the easement negotiations with landowners will involve negotiating individual damage payments specific to each landowner's property. If marketable timber will be removed from the easement area, a timber appraisal will be prepared by an independent timber appraiser to compensate for the value of any such timber. In addition, landowners can request that any marketable timber removed from the right-of-way be set aside for the landowner to sell. As a result, the landowner will have the opportunity to be compensated for the timber by Grain Belt Express and also sell the timber from the right-of-way. GBX Ex. 7.22 at 18; GBX IB at 151.

In regard to Ms. Locke's concern over CO2 sequestration credits, Grain Belt Express states that Ms. Locke does not have any contracts on her land for selling CO2 credits. GBX states, however, that any appraisal conducted will take into consideration the value of any contracts for CO2 credits for the timber that would be removed. CCPO Ex. 7.22 at 18; GBX IB at 151-152.

Ms. Locke also expressed concern about having the Grain Belt Express

transmission line cross her property when there is already an Ameren transmission line on her property. CCPO Ex. 6.0 at 3, 5-6. Grain Belt Express explained that paralleling existing infrastructure avoids additional fragmentation of the landscape in an otherwise unimpacted area. GBX Ex. 8.11 at 10; GBX IB at 152. Although Ms. Locke would have two lines cross her property (if the Alternate Route were adopted), this is a very common practice in developing transmission line routes and was one of the criteria applied by the Routing Team in conducting the Route Selection Study. GBX Ex. 8.11 at 10; GBX IB at 152. GBX states that the entire length of the Alternate Route, as it relates to Ms. Locke's property, parallels an existing transmission line, thus consolidating linear infrastructure across a landscape and avoiding fragmenting land uses in otherwise unimpacted areas. GBX Ex. 8.11 at 10; GBX IB at 152.

vii. Ms. Nafsica Zotos' Property-Specific Concerns

Ms. Nafsica Zotos expressed concern that the Project will damage her family's prime farmland. MEZ Ex. 2.0 at 2-3. Grain Belt Express' responded that it estimates there are likely to be only 2 or 3 structures on the southern parcel boundary of the Zotos property. GBX Ex. 8.11 at 11; GBX IB at 152. GBX states that the area of permanent cropland loss will be limited to the area of the footprint of the structure foundation, typically between 0.00016 acre and 0.0009 acre of permanent impact (average permanent impact acreage for each footing of a four-footed lattice steel structure and for a monopole structure, respectively). Further, given that this alignment is proposed to be on the parcel boundary, only half of this cropland loss would be an impact to the Zotos property, as currently planned (i.e., between 0.00016 and 0.00135 acres of permanent cropland loss). GBX Ex. 8.11 at 11; GBX IB at 152. Additionally, Grain Belt Express reiterates that it will compensate landowners not only for the easement payment, but also per structure placed on their land. GBX Ex. 7.0 at 22; GBX IB at 152.

m. Grain Belt Express' Compliance Filings

Grain Belt Express states that in addition to addressing concerns raised by landowner witnesses in filed testimony, it also addressed comments it received throughout the routing process from landowners concerning the placement of the transmission line on their properties or specific impacts to their properties, structures or operations. GBX IB at 153. GBX states that in a comprehensive compliance filing submitted on August 12, 2015, it detailed how it addressed concerns raised by landowners at the third round of Public Meetings, beginning on March 2, 2015. GBX IB at 153. (Grain Belt Express had sought feedback from landowners on routing options, through an extensive public outreach process, prior to the third round of Public Meetings; however, the Proposed Route and Alternate Route were not developed and published, in close to final form, until just prior to the third round of Public Meetings. GBX IB at 153.). Additionally, in a supplemental compliance filing, Grain Belt Express provided responses to requested routing changes, and to objections concerning the proposed placement of the transmission line on individual landowner properties, raised by speakers at the Public Forums held by the Commission on July 28 and 29, 2015. GBX IB at 153.

2.-x. [Other Parties' Positions]

y. Commission Analysis and Conclusion

The Commission notes that the AIMA requires Grain Belt Express to discuss the mitigation measures it attempts to employ with the landowner before implementing them and that the AIMA will be incorporated into Grain Belt Express' easement agreement. Additionally, Grain Belt Express will employ Independent Agricultural Inspectors to verify and enforce compliance with the AIMA by Grain Belt Express and its contractors. The IAI will have the authority to stop non-compliant construction activities. The AIMA specifies the measures Grain Belt Express will use to avoid, mitigate and minimize impacts of the Project on landowner property, including damage related to soil compaction, drainage tiles and aerial application. Additionally, if damage does occur, Grain Belt Express will repair or replace as necessary, and will compensate landowners for reduction in crop yields related to the construction, operation or maintenance of the Project.

The Commission finds that Grain Belt Express has undertaken and developed reasonable measures and procedures to avoid or reduce impacts on affected properties. The Commission expects Grain Belt Express to comply with its obligations under the AIMA. In addition, the Commission has noted the various means testified to by Grain Belt Express witnesses that will be employed to avoid, mitigate, and minimize impacts to land. The Commission expects Grain Belt Express and its contractors to employ the avoidance, mitigation and remediation measures as testified to in this case by Grain Belt Express witnesses.

The Commission notes that Grain Belt Express has addressed landowner concerns regarding damage to environmental, historical and conservation areas. Grain Belt Express explained that it will coordinate with the necessary local, state and federal agencies and will secure all necessary permits. The Commission expects Grain Belt Express to obtain all required permits and to coordinate with government agencies as necessary.

Some intervenors raised concerns about transmission line interference with GPS systems and potential health impacts. The Commission notes that Grain Belt Express explained that the frequencies at which GPS systems operate is much higher than the frequency range of corona noise emitted by transmission lines, such that the line is unlikely to interfere with GPS. Additionally, the Commission notes that Grain Belt Express witness Dr. Wayne Galli reviewed publications produced by governmental and other scientific and health organizations that analyzed studies on long-term health effects of EMF. Dr. Wayne Galli is qualified as a Ph.D. in electrical engineering to calculate and report the strength of electric fields produced by the line and compare those with the recommended maximum EMF exposure limits.

LACI raised the argument that property values will suffer because of the Project. The Commission rejects LACI's argument. Grain Belt Express witness Mr. Roddewig provided testimony in which he analyzed and conducted of studies comparing the sales prices of land with transmission line easements with land without easements. The result of Mr. Roddewig's analysis is that transmission lines generally do not cause any impact on property prices and values. Where studies do find adverse impacts, those impacts range from 2% to 7%. However, those adverse impacts are generally temporary and land values return to the initial price or higher as landowners become used to the transmission line.

G. Interactions with Pipelines and Railroads

1. Rockies Express Pipeline

a. Grain Belt Express' Position

During this proceeding, Rockies Express Pipeline ("REX") raised certain issues concerning possible impacts that the operation of the proposed GBX HVDC Project may have on its Rockies Express interstate natural gas pipeline (inclusive of all compression, metering, and other related facilities, the "Pipeline") because the Proposed Route and Alternate Route for the GBX HVDC Project cross and/or run parallel to, the Pipeline at certain locations in Illinois. GBX Ex. 8.2 at 348, 370; GBX Ex. 8.5 at 10. As is customary in such circumstances, and as Grain Belt Express and REX represented during this proceeding, they collaborated to address mitigation of risks, including the risk of stray current, presented by the design, construction, operation and maintenance of their respective facilities where the Proposed Route or Alternate Route of the GBX HVDC Project may cross (at one location) and/or run parallel to the Pipeline in Illinois. Engineering experts and other representatives of Grain Belt Express, on the one hand, and engineering experts and other representatives of REX, on the other hand, discussed on several occasions their respective concerns about the possible impact that the design, construction, operation, and maintenance of the GBX HVDC Project may pose to the safety and integrity of the Pipeline and the possible impact that the study and implementation of mitigation systems may have upon the design, construction, operation, and maintenance of the GBX HVDC Project, including issues of financial responsibility, in Illinois. Rockies Express Pipeline - Grain Belt Express Joint Exhibit 1.0 at 1-2; GBX IB at 153-154

As a result of their collaboration, Grain Belt Express and REX entered into a Stipulation which was accepted into evidence, and made a part of the record in this proceeding, as Rockies Express Pipeline-Grain Belt Express Joint Exhibit 1.0 (the "Stipulation"). Tr. 745-747. The Stipulation reflects an agreement reached by Grain Belt Express and REX that resolved any dispute about pipeline safety and integrity and how to harmonize those imperatives with the needs of the Project. Express Pipeline-Grain Belt Express Joint Exhibit 1.0 at 2; GBX IB at 154. In the Stipulation, REX and Grain Belt Express both support meeting REX's concerns about pipeline safety and integrity, on the one hand, and GBX HVDC Project coordination needs, on the other hand, and "jointly request…that the Commission include the following statement in the Commission's Order granting a Certificate of Public Convenience and Necessity in this Proceeding":

> GBX and REX each address the need to mitigate the potential impact of the GBX HVDC Project on the Rockies Express Pipeline. GBX and REX both support meeting pipeline safety and project coordination needs. The Commission agrees that the GBX HVDC Project cannot be designed, constructed, operated, or maintained in a manner that poses a risk to the safety or integrity of the Pipeline, and that GBX should be responsible for the costs of installing and operating monitoring and testing equipment, and other mitigation steps, that are reasonably necessary to assure the safety and integrity of the Pipeline. The Commission further agrees that GBX should pay for all direct damages to REX proximately caused by the construction and ongoing operation of the GBX HVDC Project, including

> from fault currents. At the same time GBX should be protected from shouldering costs that are excessive or that are unjustified under applicable regulations, accepted pipeline safety practices, or reasonable engineering judgment. The record shows the process GBX and REX support meets those criteria. (Rockies Express Pipeline – Grain Belt Express Joint Exhibit 1.0 at 2.)

Grain Belt Express believes that the inclusion of this statement in the Certificate of Convenience and Public Necessity is supported by the statements in the Stipulation and is consistent with the Commission's interest in adjudicating these issues with respect to Pipeline safety and coordination of the GBX HVDC Project.

b. Rockies Express Pipeline's Position

c. Commission Analysis and Conclusion

GBX and REX each address the need to mitigate the potential impact of the GBX HVDC Project on the Rockies Express Pipeline. GBX and REX both support meeting pipeline safety and project coordination needs. The Commission agrees that the GBX HVDC Project cannot be designed, constructed, operated, or maintained in a manner that poses a risk to the safety or integrity of the Pipeline, and that GBX should be responsible for the costs of installing and operating monitoring and testing equipment, and other mitigation steps, that are reasonably necessary to assure the safety and integrity of the Pipeline. The Commission further agrees that GBX should pay for all direct damages to REX proximately caused by the construction and ongoing operation of the GBX HVDC Project, including from fault currents. At the same time GBX should be protected from shouldering costs that are excessive or that are unjustified under applicable regulations, accepted pipeline safety practices, or reasonable engineering judgment. The record shows the process GBX and REX support meets those criteria.

2. Illinois Central Railroad and BNSF Railroad

a. Grain Belt Express' Position

Illinois Central Railroad Company ("ICRR") submitted testimony in this docket in which its witness, Mr. Spiros, stated (i) ICRR "takes no position" on Grain Belt Express' request for a CPCN, and (ii) ICRR's concern here is to "make sure that whatever happens, the safety and integrity of IC[RR]'s property is maintained and the ability of IC[RR] to maintain and develop freight volumes in support of their common carrier obligation is protected." ICRR Ex. 1.0 at 4. BNSF Railway ("BNSF") did not submit any testimony in these proceedings, but did cross examine Grain Belt Express witness Mr. Jones of Quanta during the evidentiary hearings. GBX IB at 155. Grain Belt Express explains that Mr. Jones' cross examination testimony is responsive to the issues that ICRR raised in its rebuttal testimony. GBX IB at 155.

Grain Belt Express explains that Mr. Jones testified regarding the safety requirements that Quanta will employ when performing construction activities on or about railroad property, including that (i) Quanta (or the Quanta client) will acquire the applicable permit and Quanta will review all of the conditions in the permit; (ii) if Quanta will be performing construction activities within the railway easement, Quanta will complete any required forms, will set temporary guard structures for protection of the

railroad, and will submit the detail plans for that activity; (iii) Quanta will perform due diligence to locate any underground utilities so as to avoid damaging them; and (iv) if required by the applicable permit or otherwise, Quanta will coordinate with the track master to have a railroad flagman be on-site during construction. GBX IB at 155-156. Grain Belt Express explained that Mr. Jones testified that the above-described measures are intended to protect the safety of the railroad workers, the general public, and to avoid accidents or derailments. Tr. 562-564; GBX IB at 156. Grain Belt Express states that it has addressed the safety-related concerns raised by both ICRR and BNSF and that Grain Belt Express and its EPC contractor will comply with all applicable and customary safety practices and procedures when performing construction related activities on or about railroad property, including the practices and measures described in this paragraph. Tr. 562-564; GBX IB at 155-156; GBX RB at 99.

ICRR requests that any order in this case require Grain Belt Express to "abide by railroad safety requirements when the project requires the use of railroad property." ICRR IB at 2. Grain Belt Express states that it has every intention of reaching agreement with each railroad it will cross as to how it will cross the railroad and the safety requirements associated with Grain Belt Express' construction and maintenance activities. GBX RB at 99. Grain Belt Express states, however, that ICRR has not provided any safety requirements for the record in this case nor presented any proposed safety requirements to Grain Belt Express for review, and therefore Grain Belt Express cannot make a blanket agreement to comply with any and all safety requirements prescribed by ICRR. GBX RB at 99. GBX also explains that there is no need for such a condition because the railroad property is privately owned, and therefore Grain Belt Express will be unable to enter upon or perform any construction activities without getting ICRR's permission. GBX RB at 99. Grain Belt Express states that in negotiating a crossing permit or easement rights with ICRR, Grain Belt Express and ICRR will need to reach agreement regarding safety practices. GBX RB at 99.

ICRR requests that any order approving the Project require Grain Belt Express "to reach agreement with ICRR prior to any occupation of ICRR's property or acquire the right to occupy ICRR's property through a circuit court eminent domain proceeding with proper subject matter jurisdiction which can only take place after [Grain Belt Express] has acquired general eminent domain authority pursuant to 220 ILCS § 5/8-509 and then subsequently received an order from the Illinois Commerce Commission pursuant to 735 ILCS § 30/10-5-10(g) to exercise eminent domain rights over railroad property." ICRR IB at 3. Grain Belt Express states that there is no need for the order in this case to include ICRR's proposed requirement because 735 ILCS § 30/10-5-10(g) already establishes this requirement, stating that "no property… belonging to a railroad… may be taken or damaged, pursuant to the provisions of this Act, without the prior approval of the Illinois Commerce Commission." GBX RB at 100. Grain Belt Express explains that there is no reason for the Order to direct Grain Belt Express to do what it is already required to do by law. GBX RB at 1000.

Like ICRR, BNSF states in its initial brief that it "takes no position on the granting/denial of [Grain Belt Express'] Application." BNSF IB at 1. BNSF makes the same two requests as ICRR: (1) BNSF requests that if the CPCN is granted, that "GBX be required to abide by the BNSF's safety requirements to the extent that GBX or its contractors are on or about the railroad right of way, and be required to address the safety and operational issues to protect the safety and integrity of BNSF's rail

operations"; and (2) BNSF requests that Grain Belt Express be required to seek general eminent domain authority as a utility pursuant to 22 ILCS 5/8-509 and pursuant to 735 ILCS 30/10-5-10(g). BNSF IB at 3, 4. In response, GBX states that BNSF has not placed any of its safety requirements into the record or submitted them to Grain Belt Express for review, and therefore Grain Belt Express cannot make a blanket commitment at this time to comply with BNSF's safety requirements. GBX RB at 100. Grain Belt Express further states that there is no reason to include in the order in this case a requirement that Grain Belt Express must seek eminent domain authority pursuant to 735 ILCS 30/10-5-10(g) because the cited statute requires that Grain Belt Express obtain specific approval from this Commission prior to seeking to exercise eminent domain authority to acquire an easement on railroad property. GBX RB at 100.

b. BNSF's Position

c. ICRR's Position

d. Commission Analysis and Conclusion

The Commission finds, based on the record, in particular Mr. Jones' testimony, that Grain Belt Express is fully aware of and is prepared to address the safety-related concerns raised by ICRR and BNSF. However, the Commission finds that it is premature to require Grain Belt Express to comply with either ICRR's or BNSF's safety requirements where these safety requirements have not been provided in the record and/or to Grain Belt Express for review. Accordingly, the Commission will not impose a blanket requirement in this Order for Grain Belt Express to comply with such requirements. Lastly, the Commission declines to adopt ICRR's and BNSF's requests that the Order require that Grain Belt Express comply with 735 ILCS 30/10-5-10(g), because that statute already expressly requires that Grain Belt Express obtain specific approval of this Commission prior to seeking to exercise eminent domain authority to acquire an easement on railroad property.

VI. Request for Authority Under §8-503

A. Grain Belt Express' Position

Grain Belt Express requests that the Commission's order in this proceeding, in addition to granting a CPCN for the Project, also authorize Grain Belt Express, pursuant to §8-503 of the Act, to construct the Project. The text of §8-503 and of §8-406.1(i) is quoted in §I.D, Legal Standards, of this Order. Although under §8-406.1(i), the grant of a CPCN for a new high voltage electric service line and related facilities pursuant to §8-406.1(f) compels the grant of authority pursuant to §8-503 to construct the Project, Grain Belt Express states that the record shows the requirements for an order under §8-503 have been independently met. Grain Belt Express states that the evidence supporting a finding that the Project satisfies the criteria for a CPCN in §8-406.1(f)(1) also shows that the Project will promote the development of an effectively competitive electricity market, will promote the security and convenience of the public, and will help to secure adequate services and facilities, particularly by enabling 4,000 MW of new renewable generating capacity to be available to Illinois electricity markets, and by enabling electricity produced by cost-effective wind generation resources in western Kansas to access and be delivered to electricity markets in Illinois and other PJM and MISO states, to the ultimate benefit of retail electricity consumers. GBX concludes that

the evidence supports a finding that Grain Belt Express should be authorized, pursuant to §8-503, to construct the Project. GBX IB at 156-157.

Grain Belt Express states that there has been concern expressed by intervenors that the grant of authority pursuant to §8-503 to construct the Project will provide Grain Belt Express a fast track to beginning eminent domain proceedings against landowners, but that this concern is unfounded, for several reasons. First, although eminent domain authority pursuant to §8-509 of the Act can be requested in a §8-406.1 application, Grain Belt Express has not requested eminent domain authority in this proceeding. Application ¶11. Second, Grain Belt Express states that it is committed to attempting to obtain the necessary rights-of-way through negotiations with landowners and voluntary transactions, to the maximum extent possible, and that it would only would seek to use eminent domain if it has been unsuccessful in obtaining the necessary transmission line easement rights on a particular parcel after exhausting reasonable efforts to acquire the easement through negotiations and voluntary transactions. GBX Ex. 1.0 at 32; GBX Ex. 7.0 at 23-24; GBX IB at 157-158.

Third, Grain Belt Express states that in order to obtain eminent domain authority to acquire easements on properties that it has been unable to acquire through negotiations and voluntary agreements, it will need to file a separate, future application with the Commission pursuant to §8-509 for such authority, and obtain an order granting such authority, based on a showing that the criteria the Commission has established for granting eminent domain authority pursuant to §8-509 are met. GBX states that in determining whether to grant eminent domain authority for a transmission line pursuant to §8-509, the Commission typically looks at, among other evidence: (1) the applicant's number and extent of contacts with landowners; (2) whether the applicant has explained its offers of compensation; (3) whether the offers of compensation to the subject landowners are comparable to offers made to similarly situation landowners; (4) whether the applicant has made an effort to address landowner concerns; and (5) whether further negotiations will likely prove fruitful in reaching negotiated settlements. GBX IB at 158 (citing *Ameren Illinois Company*, Docket 13-0456 (Sept. 10, 2013), at 3).

Fourth, Grain Belt Express states that in a future proceeding requested eminent domain authority under §8-509, were it to be filed, Grain Belt Express would need to demonstrate, among other things, that it has engaged in significant, good faith negotiations with the landowners, but has been unable to acquire the necessary easements. GBX states that this showing typically requires that the applicant demonstrate it has had a significant number of meetings and/or other contacts with the landowner and/or his or her counsel or other representatives and has made offers to the landowners. Grain Belt Express states that it, has not yet initiated any efforts to acquire transmission line easements in Illinois, among other reasons because it does not have an approved route for the Project in Illinois and will not have an approved route until the instant proceeding is concluded. Tr. 141-142. Therefore, GBX will not begin negotiations with landowners in Illinois to acquire easements, at the very earliest, until after it receives a CPCN for the Project with an approved route in Illinois. GBX states that experience shows that whenever it does begin its efforts to acquire transmission line easements through negotiations with landowners, it will take a considerable period of time to have sufficient meetings and negotiations with landowners to support a request for eminent domain authority (assuming the negotiations are not successful in reaching an easement agreement). GBX IB at 158-159.

Thus, Grain Belt Express states that it will need to engage in a considerable amount of contacts and negotiations with landowners before it could return to the Commission to request that the Commission grant it eminent domain authority pursuant to §8-509 to acquire easements on landowner properties in Illinois. Grain Belt Express emphasizes that it cannot begin the landowner negotiation process until the Commission issues an order in this proceeding approving a route for the Project in Illinois. GBX IB at 159.

Grain Belt Express notes that §8-406.1(i) specifies that the order authorizing construction of the high voltage electric transmission line and related facilities shall authorize the construction "in the manner and within the time specified" by the Commission. With respect to "in the manner," Grain Belt Express states that it understands that the specifications in the CPCN order for the Project, including the approved route, approved easement widths and approved structures, as well as any conditions or requirements imposed, are also applicable to the §8-503 authority. GBX Ex. 1.0 at 58-59. With respect to "within the time," Grain Belt Express recommends that the Commission's order should specify that Grain Belt Express should begin construction of the Project within two and one-half years following the date of the order in this case. *Id*. at 59. GBX states that although the July 2015 decision of the Missouri PSC denying Grain Belt Express's request for a certificate of convenience and necessity for the Project in Missouri delays the Project in a manner not anticipated when the instant Application was filed, GBX believes 2.5 years will still provide sufficient time to obtain necessary authority to begin constructing the Project in Missouri, pursuant to one of the options available to Gran Belt Express. Tr. 272. GBX states that this period will also provide sufficient time to complete the interconnection processes with PJM, MISO and SPP and to complete the environmental permitting processes that follow the receipt of an approved route. GBX Ex. 1.0 at 59; GBX IB at 159.

Grain Belt Express' Response to CCPO

In response to CCPO, Grain Belt Express states that the fact that the Missouri PSC has issued an order denying Grain Belt Express' request for a certificate of convenience and necessity for the Project in that state does not make the requested order herein pursuant to §8-503 authorizing construction of the Project an "impossibility." CCPO IB at 19. Grain Belt Express has options for obtaining regulatory approval for the Project in Missouri. GBX IB at 16; GBX RB at 100-101.

Grain Belt Express' Response to IAA

Grain Belt Express responded to IAA's question as to why Grain Belt Express is requesting that the order authorizing it to construct the Project, pursuant to §8-503 and §8-406.1(i), specify that construction should begin within 2.5 years following the date of the order, when §8-406(f) of the Act states that authority conferred by a CPCN issued by the Commission shall be exercised within two years. IAA IB at 47-48. GBX states that these two sections reflect two separate requirements. Section 8-406.1(i) expressly requires that the order authorizing construction of a new high voltage electric transmission line specify "in the manner and within the time." In response to this provision, Grain Belt Express has proposed that the order specify that construction should commence within 2.5 years, for the reasons explained by Mr. Skelly. GBX Ex. 1.0 at 59; Tr. 272. Further, GBX states that "in the manner" encompasses all the Project related approvals and directions in the Order, such as the approved route,

approved easement widths, approved structure types, and required actions to prevent impacts to landowners' properties. GBX IB at 159. GBX states that §8-406(f), in contrast, specifies that a CPCN granted by the Commission shall be "exercised" within two years. GBX states that, arguably, this provision of §8-406(f) is not applicable to a CPCN issued pursuant to §8-406.1 in light of the specific authorization in §8-406.1(i) for the Commission to specify the manner in which and time within which the new high voltage electric service line and related facilities are to be constructed. GBX states that, in any event, to "exercise" the CPCN does not require that construction of the Project be commenced. Conducting environmental, biological and engineering surveys and studies on landowner properties, negotiating for and acquiring easements from landowners, continuing with the interconnection study processes, conducting detailed engineering and design activities, ordering and acquiring equipment, and signing transmission customers to service contracts, among other activities, are all actions that comprise exercising the authority granted by the CPCN. GBX RB at 101-102.

IAA states that "GBX is attempting to negotiate easements first, then it will only apparently seek eminent domain authority if it hits an impasse with easement negotiations with landowners." IAA IB at 48. Grain Belt Express states that IAA is correct, as Grain Belt Express has stated repeatedly in this case; this is the usual and normal order of operations to acquire easement rights for a transmission line. GBX reiterates, however, that even if were to request and obtain eminent domain authority with respect to specific parcels, it will still have strong incentives to acquire those easements through negotiations, to avoid a condemnation action. GBX RB at 102.

Grain Belt Express' Response to LACI

LACI argues that Grain Belt Express will receive authorization pursuant to §8-503 to construct the Project solely because of the "automatic" provision of §8-406.1. LACI IB at 56. Grain Belt Express states, however, that the record shows it meets the criteria of §8-503 for issuance of an order directing it to construct the Project, regardless of the applicability of 8-406.1(i). GBX IB at 156-157; GBX RB at 102.

B.-x. [Other Parties' Positions]

y. Commission Analysis and Conclusion

In accordance with §8-406.1(i) of the Act, the Commission authorizes Grain Belt Express to construct the Grain Belt Express Project, as described in this Order, in the manner and within the time specified in this Order. Without limiting the foregoing authorization, Grain Belt Express is authorized to construct the Project along the route (in Illinois) approved in §V.A, V.B and V.C of this Order and described on Appendix A hereto, and in accordance with the conditions and requirements adopted, and other findings made, in this Order, and with construction on the Illinois portion of the Project to commence within two and one-half years of the date of this Order, unless subsequently modified by this Commission.

VII. Grain Belt Express' Accounting-Related Requests

A. Use of the FERC Uniform System of Accounts

1. Grain Belt Express' Position

Grain Belt Express states that as a multi-state provider of transmission services in interstate commerce that will be subject to the jurisdiction of FERC as well as of this Commission, it will maintain its books and records of account in accordance with FERC's Uniform System of Accounts Prescribed for Public Utilities and Licensees Subject to the Provision of the Federal Power Act, 18 C.F.R. Part 101. GBX Ex. 11.0 at 90. GBX states that FERC's order granting negotiated rate authority requires Grain Belt Express to keep its books and records in accordance with the FERC Uniform System of Accounts, 18 C.F.R. Part 101. *Grain Belt Express Clean Line LLC,* 147 FERC ¶61,098, at P 24 (2014); GBX Ex. 11.0 at 90. Grain Belt Express Exhibit 11.12 is the Chart of Accounts that Grain Belt Express has adopted in accordance with FERC's Uniform System of Accounts. GBX Ex. 11.0 at 90. GBX states that, based on the nature of its operations, it will be a "public utility," but not an "electric utility," as defined in the Act. Application ¶9, 97; GBX Ex. 11.0 at 91. Grain Belt Express states that because it will not be an "electric utility," based on a literal application of the Commission's regulation at 83 Illinois Administrative Code Part 415, Uniform System of Accounts for Electric Utilities ("Code Part 415"), it will not be subject to the Commission's regulations in Code Part 415. Application ¶97. Nevertheless, Grain Belt Express acknowledges that the Uniform System of Accounts in Code Part 415 would be the Commission's system of accounts that is the most closely relevant to Grain Belt Express's operations. *Id*.; GBX Ex. 11.0 at 91. In Code Part 415, the Commission has adopted FERC's Uniform System of Accounts in 18 C.F.R. Part 101 as the Commission's Uniform System of Accounts for Electric Utilities, with certain deviations. Application ¶97; GBX Ex. 11.0 at 91; GBX IB at 160.

Grain Belt Express states that maintenance of its books and records of account in accordance with FERC's Uniform System of Accounts, 18 C.F.R. Part 101, should provide appropriate, useful and sufficient accounting and financial information for the Commission's regulatory purposes. GBX states that this is particularly so given the great similarity and consistency between FERC's Uniform System of Accounts and this Commission's Uniform System of Accounts for Electric Utilities. Additionally, GBX states that it would create undue and unwarranted burden and expense for Grain Belt Express to be required to maintain its books and records in accordance with both FERC's Uniform System of Accounts and, for Illinois regulatory purposes, this Commission's Uniform System of Accounts for Electric Utilities. Application ¶98; GBX Ex. 11.0 at 91. Grain Belt Express also notes that in its order granting a CPCN to GBX's sister company, Rock Island, the Commission granted Rock Island's request to maintain its books and records in accordance with FERC Uniform System of Accounts. *Rock Island Clean Line LLC*, Docket 12-0560 (Nov. 25, 2014), at 216; GBX IB at 160-161. Accordingly, Grain Belt Express requests that, to the extent the Commission deems necessary, it waive the applicability of 83 Ill. Admin. Code Part 415 to Grain Belt Express so long as Grain Belt Express maintain its books and records in accordance with FERC's Uniform System of Accounts at 18 C.F.R. Part 101. Application ¶98; GBX Ex. 11.0 at 91-92; GBX IB at 160-161.

2.-x. [Other Parties' Positions]

y. Commission Analysis and Conclusion

The Commission grants Grain Belt Express' request to waive the applicability of 83 Illinois Administrative Code Part 415 to Grain Belt Express, on condition that Grain Belt Express shall maintain its books and records in accordance with the FERC Uniform System of Accounts at 18 C.F.R. Part 101. In addition, Grain Belt Express is authorized to submit annual financial information required by ICC Form 21, 83 Illinois Administrative Code 210, and §5-109 of the Act (220 ILCS 5/5-109), using the FERC Uniform System of Accounts.

B. Request to Maintain Books and Records Outside Illinois

1. Grain Belt Express' Position

Grain Belt Express states that as a public utility, it will be subject to §5-106 of the Act, 220 ILCS 5/5-106, and the Commission's regulations at 83 Illinois Administrative Code Part 250, Public Utility Books and Accounts. GBX IB at 161. Section 5-106 of the Act states in pertinent part:

> Each public utility shall have an office in one of the cities, villages or incorporated towns in this State in which its property or some part thereof is located, and shall keep in said office all such books, accounts, papers, records and memoranda as shall be ordered by the Commission to be kept within the State. The address of such office shall be filed with the Commission. No books, accounts, papers, records or memoranda ordered by the Commission to be kept within the State shall be at any time removed from the State, except upon such conditions as may be prescribed by the Commission.

Section 250.10 of the Commission's regulation states that all public utilities are required "to maintain office within the State and in such office keep all books, accounts, papers, records and memoranda as are employed in their uniform classification of accounts and/or used in connection with their utility business conducted within the State."

However, 83 Illinois Administrative Code §250.20, Authority to Maintain Out-of-State Location, states:

> The aforestated requirements shall not apply against those public utilities that have received authority from the Commission to keep all or any of their books, accounts papers, records and memoranda at some location outside of the State (to the extent of the special authority received), providing that such public utilities shall file proof with the Chief Clerk of the Commission of such grant of authority, within a reasonable time after the effective date of this Part.

Further, 83 Illinois Administrative Code §250.40, Special Circumstances, states:

> When special circumstances affecting any particular public utility necessitate keeping its said books, accounts, papers, records and memoranda, or any of them, outside the State, then upon proper application and hearing, the Commission may authorize such books,

> accounts, papers, records and memoranda to be kept outside of the state if the facts and circumstances warrant, and then only upon such conditions as may be imposed to facilitate the proper administration of the Act.

Grain Belt Express states that its principal office and that of its ultimate parent company, Clean Line, is located at 1001 McKinney Street, Suite 700, Houston, Texas 77002. Application ¶93; GBX Ex. 11.0 at 89. GBX states that, although it plans to maintain an office or offices within Illinois as it moves into construction and, ultimately, the operation, of the Project, it plans to continue to maintain its principal office at the headquarters office of its parent company. GBX Ex. 11.0 at 89-90. Further, GBX states that the accounting, financial and administrative staff of Clean Line will perform accounting, financial and administrative services for Grain Belt Express, including maintenance of its accounting and financial books and records. Application ¶49, 93. Grain Belt Express also states that, due to the nature of its business and operations, it will be operating in, and subject to the jurisdiction of regulators in, four states. GBX states that for these reasons, it would be inefficient, unduly expensive and overly burdensome for it to maintain its books and records in Illinois or at any location other than the principal office of Grain Belt Express and its ultimate parent company, Clean Line, in Houston, Texas. Application ¶93; GBX Ex. 11.0 at 89; GBX IB at 161-162.

Grain Belt Express states that it commits that, as a condition to being authorized to maintain its books and records at its principal office in Houston, Texas, it shall promptly reimburse any travel costs and expenses of Commission Staff incurred in order to review those books and records. Application ¶94; GBX Ex. 11.0 at 90; GBX IB at 162-163.

Grain Belt Express notes that in the Commission's order granting a CPCN to Rock Island, the Commission granted Rock Island's request to maintain its books and records outside the State of Illinois. *Rock Island Clean Line LLC*, Docket 12-0560 (Nov. 25, 2014), at 216-217. GBX IB at 163. Accordingly, Grain Belt Express requests that in its order in this proceeding, the Commission authorize Grain Belt Express, pursuant to 83 Illinois Administrative Code §250.20 and 250.40, to maintain its books and records outside of the State of Illinois, at its principal office at 1001 McKinney Street, Suite 700, Houston, Texas 77002. GBX IB at 163.

2.-x. [Other Parties' Positions]

y. Commission Analysis and Conclusion

Pursuant to 83 Illinois Administrative Code §250.20 and §250.40, the Commission conditionally approves Grain Belt Express' request to maintain its books and records at its principal office and that of its ultimate parent company, Clean Line Energy Partners LLC, in Houston, Texas, outside of the State of Illinois. As a condition of this approval, Grain Belt Express shall promptly reimburse Staff for any travel costs and expenses incurred in order to review these books and records.

C. Request for Proprietary Treatment of Certain Information

1. Grain Belt Express' Position

Grain Belt Express states that the prepared testimony and exhibits which were filed contemporaneously with its Application contain financial and business information that Clean Line and Grain Line Express regard as proprietary and confidential. In particular, Clean Line and Grain Belt Express consider the financial statement exhibit and certain other financial information presented by Grain Belt Express witness David Berry to be proprietary and confidential. Application ¶100. Clean Line and Grain Belt Express regard the information designated as propriety and confidential in the testimony and exhibits submitted in support of Grain Belt Express's Application to be proprietary and confidential for the following reasons, among others. First, Grain Belt Express and its ultimate parent company, Clean Line, are not publicly held companies, but rather are privately-held companies that are owned at this time by a small number of investors. Clean Line may in the future become a publicly held company as it raises additional capital to finance the development and construction of its transmission projects including the Project. However, at this time, due to its privately held ownership structure, the financial information of Clean Line and Grain Belt Express should be accorded proprietary and confidential treatment. Second, disclosure of Clean Line's and Grain Belt Express' financial information at this time could be financially and competitively harmful to them in their negotiations with potential providers of products materials and services. Application ¶ 101; GBX IB at 163-164.

Section 4-404 of the Act, 220 ILCS 5/4-404, specifies that "[t]he Commission shall provide adequate protection for confidential and proprietary information furnished, delivered or filed by any person, corporation or other entity." Grain Belt Express requests that in its order in this proceeding, the Commission specify that the information designated by Grain Belt Express as proprietary and confidential in the testimony and exhibits submitted in this proceeding (including the *in camera* portions of the transcripts of the evidentiary hearing) shall be accorded proprietary and confidential treatment for a period of two years from the date of the Commission's final order in this docket. GBX IB at 164.

2.-x. [Other Parties' Positions]

y. Commission Analysis and Conclusion

The Commission agrees with Grain Belt Express' request that all confidential information placed into the record of this proceeding should be treated as proprietary and confidential for a period of two years from the date of this Order. Accordingly, pursuant to §4-404 of the Act, 220 ILCS 5/4-404, the Commission directs that all confidential information placed into the record of this proceeding shall be treated as proprietary and confidential for a period of two years from the date of this Order.

VIII. Other

A. Grain Belt Express' Position

Grain Belt Express responded to LACI's and IAA's contention that the Commission should not rule on Grain Belt Express' Application for a CPCN because it is

moot. LACI and IAA argue that the Application is moot, and that "the project is an impossibility", because the Missouri PSC has foreclosed any chance that Grain Belt Express can obtain a certificate of convenience and necessity for the Project in that state. LACI IB at 56-59; IAA IB at 49-53. GBX states that the underlying premise of this argument by LACI and IAA - that the July 1, 2015 and August 12, 2015 orders of the Missouri PSC denying, respectively, Grain Belt Express' request for a certificate and its motion for rehearing, foreclosed any possibility of obtaining a certificate of necessity and convenience in Missouri - is incorrect. GBX RB at 103.

Grain Belt Express may file a new application for a certificate with the Missouri PSC that addresses the concerns expressed by the PSC; or, Grain Belt Express may pursue federal citing authority under §1222 of the Energy Policy Act of 2005. GBX Ex. 1.5 at 4-5. The Missouri PSC order specifically left open the possibility that Grain Belt Express may obtain a certificate of necessity and convenience in Missouri by expressly inviting Grain Belt Express to file a new application if at any point Grain Belt Express gathers information that would make a better case for the Project. *Id.* Grain Belt Express states that because it has these options for obtaining regulatory approval in Missouri, and intends to pursue one or both of them, the Commission's determination in this docket may indeed "be carried into effect." Said differently, the Missouri PSC order does not support the misplaced contention by LACI or IAA that "the project is an impossibility." As the evidence shows, Grain Belt Express has options available to it for obtaining regulatory approval to construct the Project in Missouri, and is committed to using one or both of those options to obtain the necessary authority for Missouri. *Id*; Tr. 268-269; GBX IB at 16; GBX RB at 103-104.

Grain Belt Express states that the Missouri and Illinois cases are separate matters. Missouri PSC approval for the Project is not a condition precedent to this Commission's responsibility to hear and decide Grain Belt Express' CPCN application, any more than is the regulatory approval for the Project, already secured, in Indiana and Kansas. GBX states that for that reason, the cases cited by LACI and IAA are easily distinguished. GBX states that in *Shifris v. Rosenthal,* 192 Ill.App.3d 256 (1st Dist. 1989), the appellate court determined that when a building permit that was the fundamental premise of the dispute was revoked by the issuing authority, the parties' dispute became moot. Without the permit, which was a precondition of building defendants' house, no house could be built. And, there was no indication that the defendant could, or that any efforts were being made to, obtain the permit after it was revoked. *Shifris*, 192 Ill.App.3d at 261 ("[h]ere, the controversy over the issuance of a permit to build on the subject property clearly ceased to exist upon the County Department's revocation of the permit"). GBX RB at 104.

Grain Belt Express states that here, the issuance to Grain Belt Express of a certificate of convenience and necessity for the Project by the Missouri PSC is not a pre-condition for an adjudication of Grain Belt Express' Application for a CPCN in Illinois. GBX states that neither LACI nor IAA cite to any law, or other authority, that requires Grain Belt Express to secure certificates of convenience and necessity from the several states in any particular order, or demonstrate to the Commission that it has secured such certificates from any other state, or that the proceedings in any other state must be brought to a final conclusion, with prejudice, before Grain Belt Express may apply for, and secure, a CPCN from the Commission to construct the Project in Illinois. Further, as explained above, Grain Belt Express is pursuing, and it remains a real

possibility that Grain Belt Express will obtain, authority to construct the Project in Missouri. GBX states that, unlike the dispute in *Shifris*, which "ceased", the application here is not moot, nor the Project "impossible." GBX states that, contrary to the assertion by LACI, the Project may well be carried into effect if the Commission approves the CPCN Application (LACI IB at 57). Grain Belt Express' CPCN Application is, therefore, an actual controversy that the ICC must decide. *Shifris*, at 261 (the court "had a duty to decide actual controversies by rendering judgments which can be carried into effect…). GBX RB at 104-105.

Grain Belt Express states that the other cases cited by LACI and IAA are no more helpful to them than *Shifris*. GBX states that, as in *Shifris*, the premise of the disputes in the other cases cited by LACI and IAA disappeared, rendering the disputes moot. *See, e.g., Independent Coin Payphone Association v. ICC*, 170 Ill.App.3d 958 (1st Dist. 1988) (Illinois Bell filed a revised tariff which eliminated the alleged discrimination that the Association complained of, and the Commission approved the revised tariff), and *Continental Air Transport Co., Inc.,* Docket 58699 (Sept. 29, 1976) (federal limitations on Continental's fuel purchases were subsequently lifted, and therefore Continental continued to operate the service lines it had sought to suspend due to unavailability of sufficient fuel). As the U.S. Supreme Court stated in *Chafin v. Chafin,* 133 S. Ct. 1017, 1023 (2013), a case "becomes moot *only* when it is impossible for a court to grant any effectual relief whatever to the prevailing party." *Id.* GBX states that here, a decision granting a certificate in accordance with Grain Belt Express' Application will most definitely provide effectual relief with respect to the Project in Illinois. Grain Belt Express may then invoke one or both of the options available to it to secure approval to construct the Project in Missouri. GBX RB at 105-106

Finally, Grain Belt Express states that since its application is not moot, there is no need to address LACI's and IAA's further contention that Grain Belt Express is seeking a declaratory ruling. In any event, Grain Belt Express states that it has not applied for, and is not seeking, a declaratory ruling. GBX RB at 106.

B.-x. [Other Parties' Positions]

y. Commission Analysis and Conclusion

The Commission rejects the positions of IAA and LACI that this proceeding is moot as a result of the Missouri PSC's order denying Grain Belt Express' request for a certificate of convenience and necessity for the Project in Missouri. First, the record shows that Grain Belt Express continues to have options for obtaining regulatory approval to construct the Project in Missouri, including through a new filing to the Missouri PSC, as expressly set forth in the Missouri PSC order. Second, receipt of approval from the Missouri PSC or any other state is not a precondition or requirement for the Commission to consider and decide Grain Belt Express' request for a CPCN for the Project in Illinois. Nothing precludes the Commission from considering Grain Belt Express' Application on its merits and granting or denying, based on the evidentiary record, the request for a CPCN. Indeed, it is the Commission's obligation to do so.

IX. Findings and Ordering Paragraphs

The Commission, having given due consideration to the Application and the evidentiary record, is of the opinion and finds that:

(1) Grain Belt Express Clean Line LLC is a limited liability company organized under the laws of the State of Indiana and is duly qualified to do business in the State of Illinois;

(2) the Commission has jurisdiction over Grain Belt Express and the subject matter of this proceeding;

(3) the facts recited and the findings and conclusions reached in the prefatory portion of this Order are supported by the evidence and are hereby adopted as findings of fact;

(4) Grain Belt Express has fulfilled the requirements of §8-406.1(a)(1), (2) and (3) of the Act;

(5) subject to the determinations made and conditions and requirements imposed in this Order, the Commission finds, pursuant to §8-406.1(f) of the Act, that the high voltage electric service line and related facilities proposed by Grain Belt Express (the "Project") will promote the public convenience and necessity; is necessary to provide adequate, reliable and efficient service to Grain Belt Express' customers and is the least-cost means of satisfying the service needs of its customers; and will promote the development of an effectively competitive electricity market that operates efficiently, is equitable to all customers, and is the least cost means of satisfying those objectives; that Grain Belt Express is capable of efficiently managing and supervising the construction process for the Project and has taken sufficient action to ensure adequate and efficient construction and supervision of the construction; and that Grain Belt Express is capable of financing the proposed construction without significant adverse financial consequences for Grain Belt Express or its customers;

(6) subject to the determinations made and conditions and requirements imposed in this Order, pursuant to §8-406.1 of the Act, a Certificate of Public Convenience and Necessity should be issued to Grain Belt Express as ordered below;

(7) pursuant to §8-406.1(i) and §8-503 of the Act, the Commission finds that the construction of the Project is necessary and it should be erected to promote the security and convenience of the public, to promote the development of an effectively competitive electricity market and to secure adequate services and facilities; subject to the determinations made and conditions and requirements imposed in this Order, Grain Belt Express should be authorized to construct the Project as described in, and in the manner and within the time specified in this Order, with construction of the Project within the State of Illinois to commence within 2-1/2 years following the date of this Order unless modified by the Commission;

(8) Grain Belt Express should be issued a Certificate of Public Convenience and Necessity to construct, operate and maintain the Project as a nominal ±600 kV high voltage direct current transmission line and related facilities, including a direct current to alternating current converter station in Clark

County, Illinois, and a double circuit 345 kV AC line from the converter station to the Illinois-Indiana border, along the route described in Grain Belt Express Exhibit 8.10 and set forth in Appendix A to this Order, with a permanent-right of-way of 200 feet around the centerline of the transmission line from the Mississippi River to the converter station in Clark County and 200 feet around the centerline of the double circuit 345 kV AC line from the converter station to the Illinois-Indiana border (with the exception that approval for rights-of-way greater than 200 feet in the segments of the route described in paragraph 74 of the Application and in §V.D.1.a of this Order should be granted), and additional temporary easements of (i) 50 feet beyond the permanent right-of-way as required for purposes of access and construction during construction of the Project and (ii) up to 450 feet beyond the permanent right-of-way at those locations with turning structures at 15 to 90 degree angles as described in paragraph 75 of the Application and §V.D.1.a of this Order;

(9) the authority granted here is granted subject to, and Grain Belt Express shall comply with, the conditions and requirements adopted in §IV.E of this Order;

(10) the applicability of 83 Illinois Administrative Code Part 415 to Grain Belt Express should be waived, on condition that Grain Belt Express maintains its books and records in accordance with the Federal Energy Regulatory Commission Uniform System of Accounts at 18 C.F.R. Part 101, and submits annual financial information required by ICC Form 21, 83 Illinois Administrative Code 210, and §5-109 of the Act, using the FERC Uniform System of Accounts;

(11) pursuant to 83 Illinois Administrative Code §250.20 and §250.40, the Commission approves Grain Belt Express' request to maintain its books and records at its principal office and that of its ultimate parent company, Clean Line Energy Partners LLC, in Houston, Texas, subject to the condition that Grain Belt Express shall promptly reimburse any Staff travel costs and expenses incurred in order to review these books and records; and

(12) pursuant to §4-404 of the Act, all confidential information placed into the record of this proceeding shall be treated as proprietary and confidential for a period of two years from the date of this Order.

IT IS THEREFORE ORDERED by the Illinois Commerce Commission that a Certificate of Public Convenience and Necessity is hereby issued to Grain Belt Express Clean Line LLC pursuant to §8-406.1 of the Public Utilities Act, and that said Certificate shall read as follows:

CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY

IT IS HEREBY CERTIFIED that the public convenience and necessity require (1) construction, operation and maintenance by Grain Belt Express Clean Line LLC of a high voltage direct current transmission line and an alternating current transmission line as described in this Order over the

route approved by the Commission and described in the legal description set forth in Grain Belt Express Exhibit 8.10 filed on e-docket in Docket 15-0277 and in Appendix A to this Order, and (2) the transaction of an electric public utility business by Grain Belt Express Clean Line LLC in connection therewith, all as set forth in this Order.

IT IS FURTHER ORDERED that pursuant to §8-406.1(i) and §8-503 of the Act, Grain Belt Express Clean Line LLC is authorized to construct the proposed high voltage electric service line and related facilities as described in, and in the manner and within the time specified, in this Order.

IT IS FURTHER ORDERED that the Certificate of Public Convenience and Necessity and the other authorizations granted herein are, and shall be, subject to, and Grain Belt Express shall comply with, the conditions and requirements adopted in Finding (9) and §IV.E of this Order.

IT IS FURTHER ORDERED that the applicability of 83 Illinois Administrative Code Part 415 to Grain Belt Express is waived, on condition that Grain Belt Express maintains its books and records in accordance with the Federal Energy Regulatory Commission Uniform System of Accounts at 18 C.F.R. Part 101, and submits annual financial information required by ICC Form 21, 83 Illinois Administrative Code 210, and §5-109 of the Act, using the FERC Uniform System of Accounts.

IT IS FURTHER ORDERED that pursuant to 83 Illinois Administrative Code §250.20 and §250.40, Grain Belt Express' request to maintain its books and records at its principal office and that of its ultimate parent company, Clean Line Energy Partners LLC, in Houston, Texas is approved, subject to the condition that Grain Belt Express shall promptly reimburse any Staff travel costs and expenses incurred in order to review these books and records.

IT IS FURTHER ORDERED that pursuant to §4-404 of the Act, all confidential information placed into the record of this proceeding shall be treated as proprietary and confidential for a period of two years from the date of this Order.

IT IS FURTHER ORDERED that any and all motions, objections and requests not ruled upon in this proceeding are hereby deemed disposed of in a manner consistent with the determinations and ultimate conclusions herein.

IT IS FURTHER ORDERED that subject to the provisions of §10-113 of the Act and 83 Ill. Admin. Code 200.880, this Order is final; it is not subject to the Administrative Review Law.

By order of the Commission this __ day of November, 2015.

(SIGNED) BRIEN J. SHEAHAN

Chairman